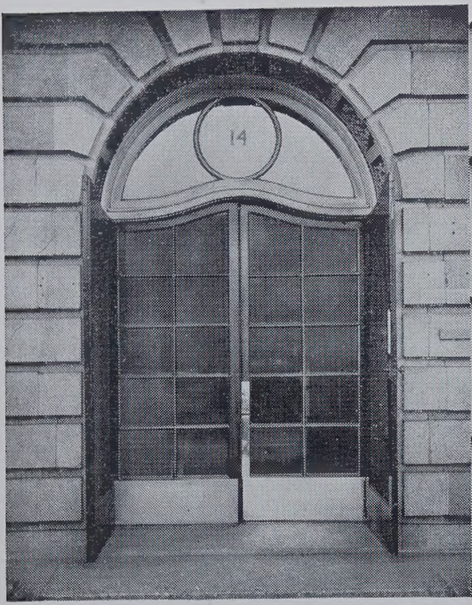
PENCIL
POINTS

ANVARY
1941

TRANSFORMATION
with
Bronze



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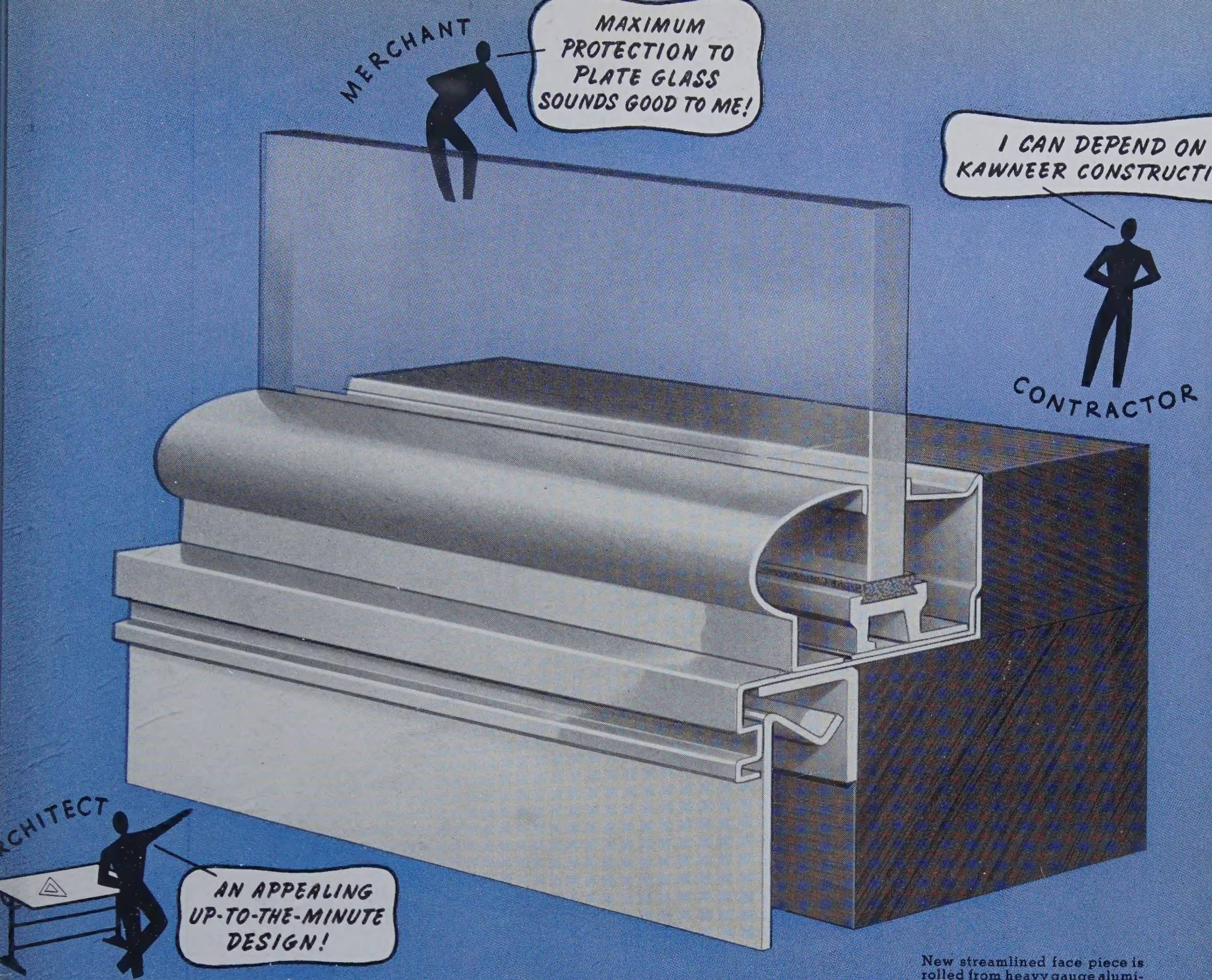
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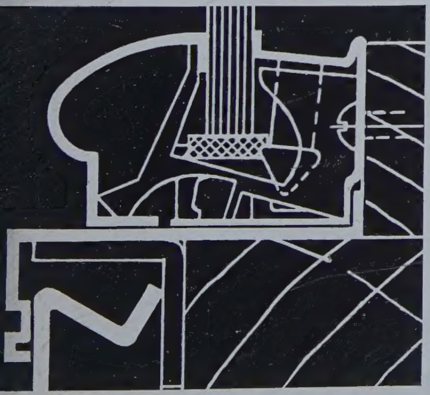

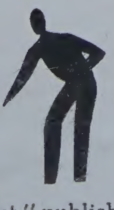

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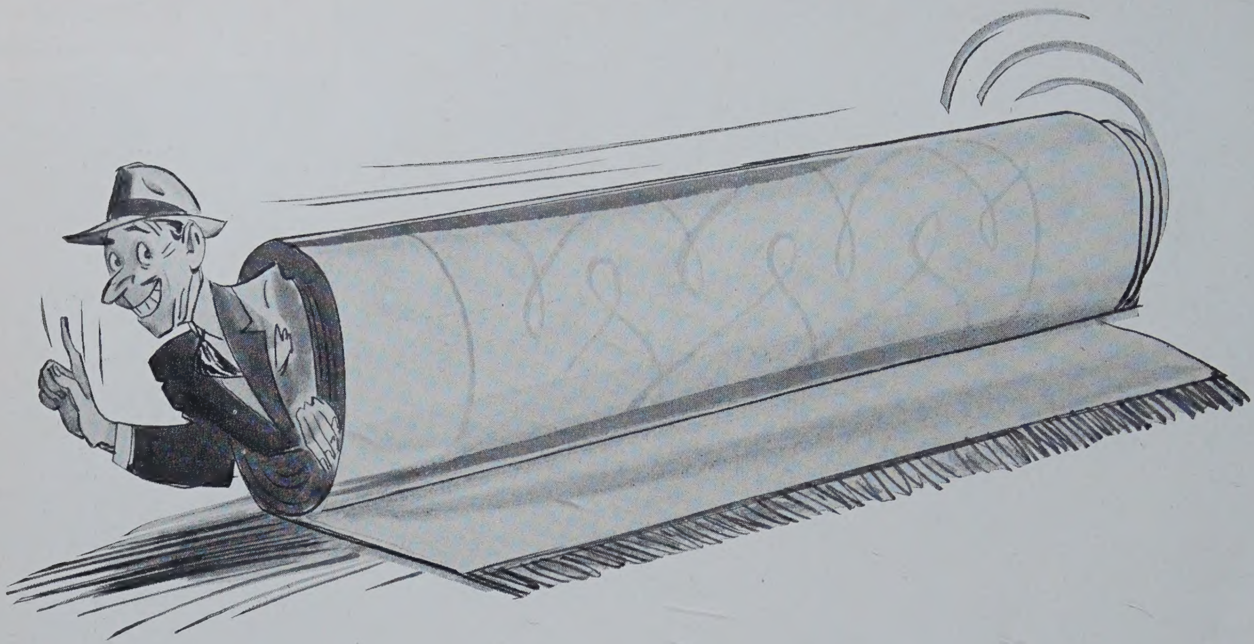

How to see an Architect without rolling oneself in a rug

Cleopatra exercised a smart bit of strategy when she concealed herself in a rug in order to gain an audience with an emperor.

Now that building is on the rise, some electrical equipment salesmen complain that it's almost as difficult to see an architect.

Our men haven't found it so—especially since we established Westinghouse Clearing House Service. For architect-builders have already learned that this new arrangement saves them a lot of time, simplifies enormously the job of rounding up essential data on Westinghouse products, services and supplies.

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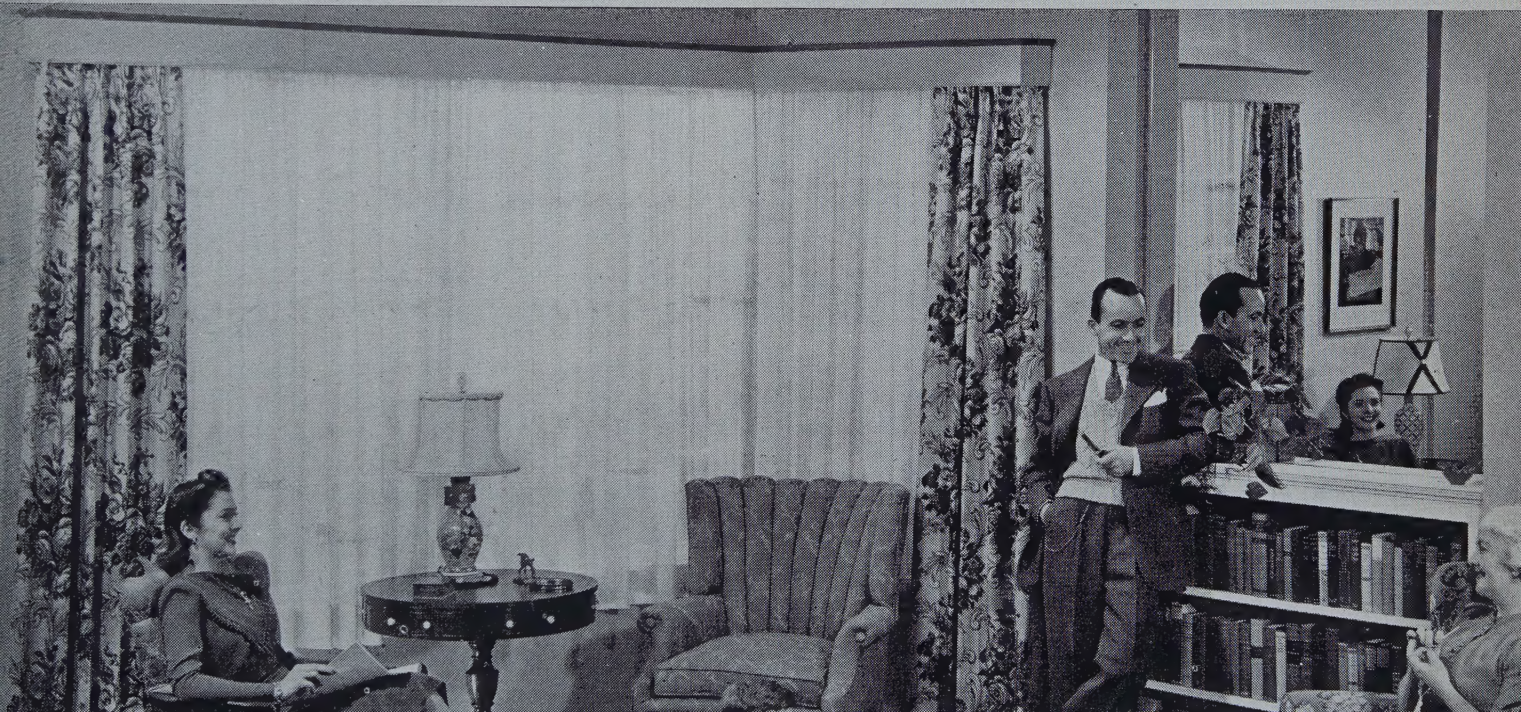
FOR ARCHITECTS AND BUILDERS

GLASS

"Designs for Happiness"



In the new American Home

Glass has created an

IT'S SMALL BUT BEAUTIFUL. IT'S MORE ECONOMICAL AND LIVABLE. YET IT COSTS LESS THAN $1.00 A DAY UNDER F.H.A. IT IS BRIGHT, AIRY AND OPEN—WITH WIDER WINDOWS, BUILT-IN MIRRORS, INTERIOR GLASS PARTITIONS. GLASS ADDS TO ITS VALUE AND SALABILITY OUT OF ALL PROPORTION TO ITS COST.

● A new kind of home is being built in America today—a home that utilizes to the fullest, all the beauty, utility and convenience that Glass offers. These houses are small but attractive. They're more convenient, more livable, and more economical to maintain. They contain many features formerly found only in more expensive homes—yet they can be bought for $1.00 a day or less under F.H.A.

These houses are *not* hypothetical—not mere dreams on a drafting board. They are actual wood and steel, brick and mortar houses being erected by the hundreds in many American communities. They are being built by builders all over the country, many have been completed and sold, under the banner of "Design for Happiness" Homes—a national building movement supported by a tremendous advertising and merchandising program in national magazines, radio, motion pictures and trade publications.

Much of the charm and beauty of this new kind of home comes from new and generous uses of glass. Wide Windows, Built-in Plate Glass Mirrors, Decorative Glass Partitions and colorful glass wainscotings of Vitrolite Structural Glass in kitchen and bathroom, combine to make a house that is brighter, gayer and easier to keep clean. No longer a luxury, Glass adds to the value and salability of a house out of all proportion to its cost.

WHAT ARE "DESIGN FOR HAPPINESS" HOMES?

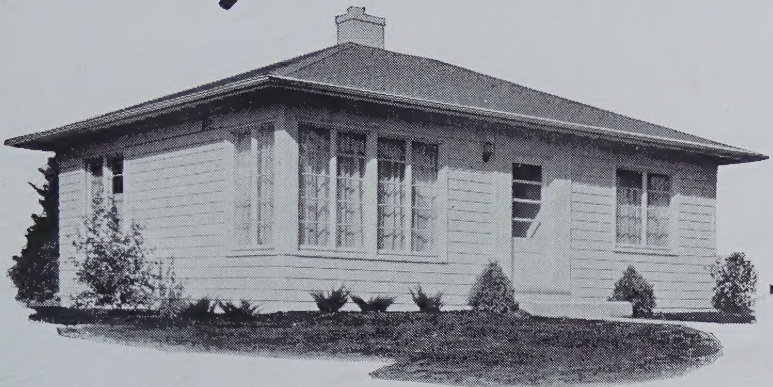
"*Design for Happiness*" *Homes* is the copyrighted name of the nation-wide home development program sponsored by the Libbey·Owens·Ford Glass Company. This program is devoted to better and lower cost homes for the home owner—to greater opportunity for the Architect—to quicker and more profitable sales for the Contractor-Builder and Real Estate Operator. This program is supported by Libbey·Owens·Ford national advertising and by the L·O·F Radio program "Design for Happiness" over the Columbia Network 5 P. M. (EST) every Sunday afternoon. "Design for Happiness" Homes are now being built all over the country. Those connected with the building industry who wish to co-operate in this profitable home-building program can secure complete information by calling the L·O·F Glass Distributor in your neighborhood or by writing the Libbey·Owens·Ford Glass Company, Toledo, Ohio.

● A built-in plate glass mirror above an attractive bookcase in the living room forms a focal point of interest—"pushes the wall back"—increases the apparent size of the room. For what they add in beauty and utility, the cost of mirrors is small.

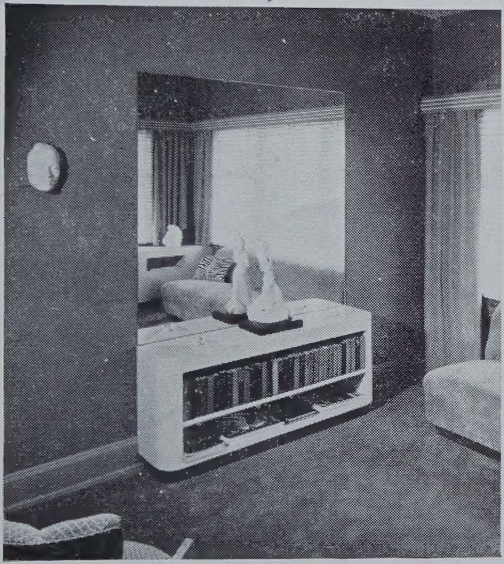
● Decorative glass makes a gem of this breakfast bar between the dining room and kitchen. When not in use, the doors may be closed to form a mirrored panel. The cupboard doors are glazed with Louvrex Decorative Glass.

● This disappearing dressing table and mirror saves space in the small bedroom. Both the mirror and the table are attached to the back of the closet door. Always there when you want it, out of the way when you don't.

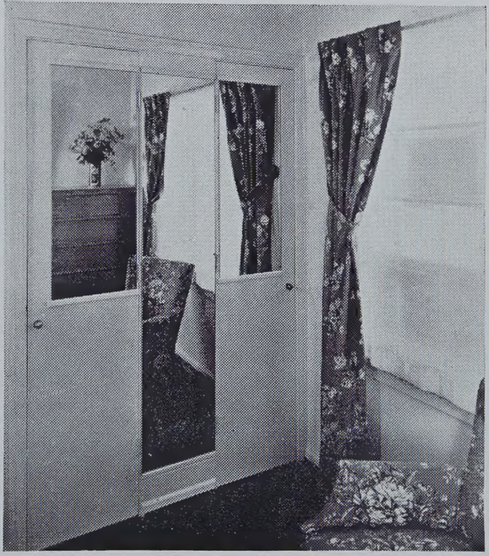
ntirely new kind of home



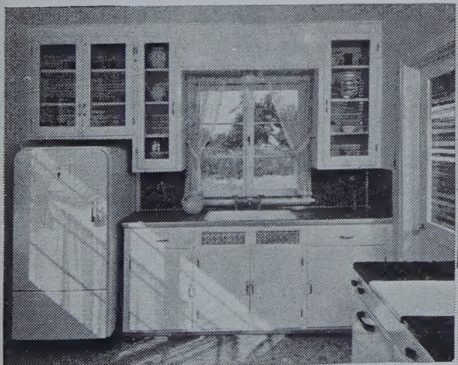
Mills, Rhines, Bellman & Nordhoff, Architects, Toledo.



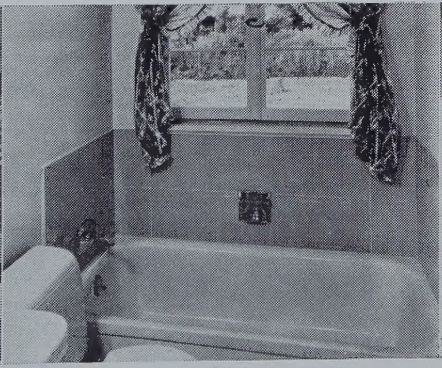
● A wall mirror of polished plate glass smartly complements the room design. Often colored plate glass is used for mirrors of this type to add beauty—achieve color harmony.



● This arrangement of 3-Panel Door Mirrors is novel and not costly. The center panel between the doors is a full-length mirror. The partial-length mirrors on the doors afford ample angle views. The mirrors, of course, are made of L·O·F Polished Plate Glass.



● A kitchen planned to afford the utmost in labor-saving convenience and utility. It's bright and cheerful, too, because of the large window and the sparkling Blue Ridge Louvrex glass in the cabinet doors. Equipped throughout with the most modern kitchen equipment.

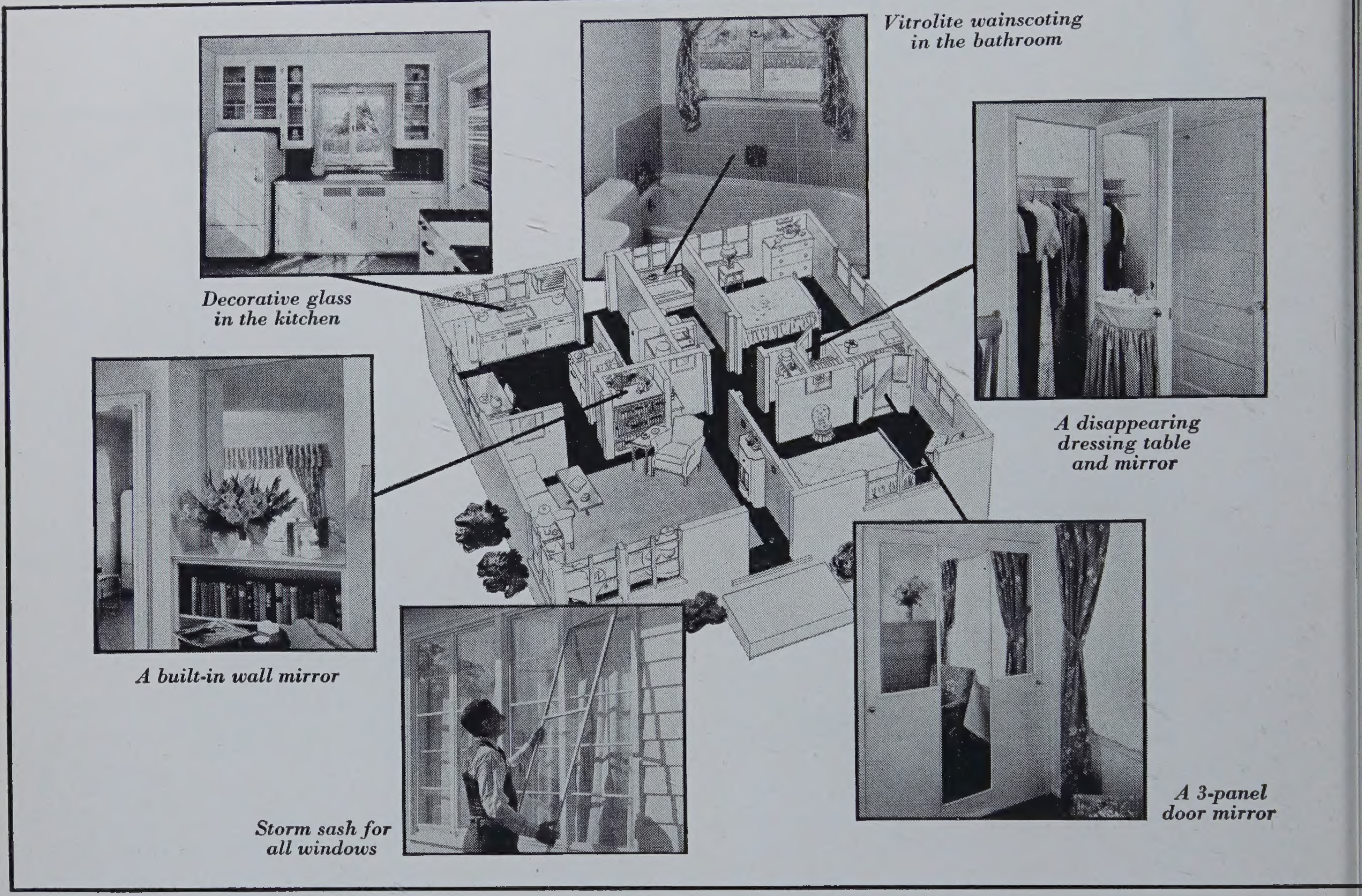


● In the bathroom, a wainscoting of Vitrolite Structural Glass protects the walls around the bathtub. Vitrolite is impervious to moisture and odors. It is easily cleaned with a damp cloth. Its colors are always new, never fade. See samples at your L·O·F Distributor's showroom—for both kitchen and bath.

● Storm windows that are tailor made. They fasten onto the face of each window in a jiffy. Storm windows and storm doors will reduce your fuel bills as much as 30%. In addition, storm windows eliminate fogged and frosted windows, greatly reduce drafts, increase home comfort.

And Glass Sells Houses

HERE ARE GLASS DESIGNS FROM A TYPICAL "DESIGN FOR HAPPINESS" HOUSE



Vitrolite wainscoting in the bathroom

Decorative glass in the kitchen

A disappearing dressing table and mirror

A built-in wall mirror

Storm sash for all windows

A 3-panel door mirror

● The glass designs shown here are taken from one of the thousands of actual "Design for Happiness" Homes now being built all over the country. They illustrate the use of Glass in the modern small home. They are not only being *built*, but they are being *sold* even before they are completed.

In one bedroom is a three-way mirror, in another a built-in dressing table and mirror. A built-in mirror adds life and interest to the living room. The wainscoting in the bathroom is of colorful Vitrolite wall glass. In the kitchen the cabinet doors and the door to the utility room are glazed with a gay decorative glass called Louvrex. There's even a powder-puff mirror by the kitchen sink. And the whole house is being equipped in the colder areas with storm windows to reduce heating costs by as much as one-third in comparison with houses which don't have storm windows. The result is a home in which every room has been made more attractive and more useful—at little added cost.

FOR FULL INFORMATION

For all the facts about this great nation-wide home-building movement, and the part that you can play in it—how you can profit by building "Design for Happiness" Homes in your own community—write to Libbey·Owens·Ford Glass Company, Toledo, Ohio. The complete story will come to you by return mail.

LIBBEY·OWENS·FORD GLASS COMPANY

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THE THRESHING FLOOR

This forthright letter from JULIAN ELLSWORTH GARNSEY, Color Consultant of New York, invites more critical attention to a phase of design that has been widely neglected. The psychological effects of color are generally known but almost as generally ignored—if we are to judge by the harsh or inappropriate or inept color schemes that offend us on every street! Mr. Garnsey served as Color Consultant to the Board of Design, New York World's Fair, and to the Queensbridge and South Jamaica housing designers.

Two articles in the December number of PENCIL POINTS are devoted to school design. Both Mr. Hamlin and Mr. Hamon speak of planning, exterior elevations, details and even "the problem of wrap storage," but not a word is said of a most important element in the schoolroom, namely, the wall and ceiling *colors* which, in a given room, give most comfort and relief to the eyes of students. Mr. Hamlin does say of the Carteret School: "Each classroom has been differentiated from the others by a characteristic color scheme." One might note in passing that, if a large number of color schemes have been used in this school, some may be functionally correct, but others are bound to be wrong. With this exception there is no indication in either article that attention was paid to correct color in any of the schools.

This is an illustration of the curious fact that architects and school authorities are little interested in what happens to the eyes of students. Ears are protected by acoustical treatment, bodies are saved from bruises by rounded corners, but eyes, which are in use throughout the school day and which, when badly treated, make such difficulties for the human system, receive almost no scientific attention.

Careful study given to the reactions of a child's eyes, from the time he enters the school until he leaves it, would be well worth while. In the morning he comes from the bright outdoors into a reduced, diffused light. Rapid adjustments are necessary. What color, as to hue, value and intensity, should meet his eyes in the entrance lobby, then in the corridors, and finally in the auditorium or classroom where he takes his seat? Answers are not standard because of location of school, orientation, design of rooms, window areas, etc., but it may be said that the customary grey-yellow is almost never right.

The classroom, for instance, customarily has four walls and a ceiling. Should the ceiling always be white? Should all four walls be the same color? The answers lie in the different functions of the five surfaces. The wall behind the teacher, for example, toward which the pupils face, should relieve their eyes from the previous strain of looking at white paper and enable the teacher's face, upon which the pupils concentrate their gaze, to be seen easily. Possible colors might be: grey-blue-green, grey warm blue, grey-green or greyed persimmon, but the exact color to be used would be determined by the design constants already present. However, the value would be definitely below middle. Where a blackboard is used, it becomes a background for the teacher's face, but the wall surrounding the board should not contrast more strongly with the board, in black-and-white value, than does the teacher's face.

Similarly, the wall opposite the windows has a function to perform. In a wide classroom it may be white to aid in light reflection but, in a narrow room, a white wall might work a hardship upon the eyes of pupils sitting in the rear seats and obliged to look along it toward the teacher.

Space does not permit further discussion of the other two walls, of the psychological effect of plain, uninteresting color in auditoriums nor of the optimum colors for desks, chairs and floors. Study of these problems will make for greater pupil attention, fewer headaches and generally greater comfort. The wise and sincere architect will find that functional color may be used, at little or no additional cost, to increase the well-being of his little clients.

JULIAN GARNSEY

B. F. McGUIRE, Architect of Teaneck, New Jersey, suggests that the profession may soon be building down instead of building up. (But the English have observed, Mr. McGuire, that the concussion of an exploding bomb or shell is more devastating underground than in the air or at the surface.) To build against Total War, architects now need more than just another set of blueprints, because Hitler's challenge must be answered with ingenuity—and unassailable success. Who knows but that new techniques may spring from necessity?

As building design is greatly influenced by prevailing conditions and circumstances, the styles of Architecture, throughout the centuries, each tell a story of its time. What influence will the war have on Architecture of tomorrow, particularly when destruction and havoc are wrought from the skies without regard for non-combatants. How long can Man withstand the strain and tension of being placed at the mercy of ruthless War Lords whose watch-word is "Destruction" while he is earnestly attending to his labors or rightfully enjoying the fruits thereof?

Must every endeavor of a peaceful and noble nature be abandoned in the face of unwarranted destruction from the clouds, because buildings were constructed for PEACE and not for WAR, or will the rights and privileges of true civilization be kept sacred and protected, only by resorting to the construction of *warproof buildings* below the surface of the ground completely encased in suitable shock reducing materials. These buildings would not only be fireproof but would have bombproof roofs well cushioned by the ground. Above the ground at the street line, one-story bulkheads just deep enough to accommodate entrance vestibules, show windows, vent piping, ducts, chimneys, fans, tanks, etc., would be the only visible part of the structure while the remaining area could be utilized for auto parking or recreational purposes.

Buildings below the ground would differ very little from those now above ground as far as comfort and convenience is concerned because of the advanced methods in ventilation, air-conditioning, heating, lighting, etc., and the practicability of reflecting sunlight. From the standpoint of protection in times of war, they would be invaluable and in peace times, the new order of things might be instrumental in solving the auto-parking problem as well as providing greater open spaces for nature lovers.

Must this take place because of Man's inhumanity to Man, or will sanity be completely and permanently restored among the peoples of the earth so that loftier ideals may take the place of greed and destruction for all time to come, or should the Architect who wrote this cease to day-dream while snugly nestled in an arm-chair at the fireside, during a radio war broadcast.

GEORGE S. DUDLEY, Art Director of Twentieth Century-Fox Film Studios, Beverly Hills, California, sent us this "complaint" long before the gastronomic hazards of the Holidays could be blamed—but it is well-timed for the New Year.

Due to the fact that we are being constantly criticised for every actual or imaginary technical defect in our work, and due to the fact that I have a rather slack day today and also due to the fact that my indigestion is annoying me I am in a perfect mood to offer a little criticism to your generally fine publication.

Drawings and photographs of bad subjects always rile me, and when bad drawings or bad photographs are made of equally bad subjects my *rage* becomes uncontrollable and so I take it out on you.

I know you don't prepare the advertisers' copy, but your subscribers have to stomach it, so it should be your concern.

If anything in the world would influence me against a building product which entered into the design of a building, it would be an illustration or a photograph of that material used to poor advantage in a structure.

Why can't material people understand that to appeal to architects they must have masterful design in their presentation?

I was head draftsman and wrote specifications for this company during a building program which ran over a million dollars. I am a certified architect in this state and I know my views are shared with many others of my profession.

Why can't you offer to your advertisers a consultation service on their layouts? Why can't the consultants consist of a good architect—a good advertising man and a good architectural delineator?

Anyway you might publish this letter with a *large* caption. "Attention advertisers who really want to appeal to Architects."

The following letter on registration of architects was sent to us by ROY A. KAZEBIER, Draftsman, of Waterloo, Iowa.

As have a great many others whose welfare is so dependent upon that of the architectural profession as a whole, I have read, in these pages, many ideas and suggestions, some of them obviously of little real value, while others, though more or less dependent upon some sort of concerted action among a large part of the profession, which is a difficult thing to obtain, would nevertheless eventually be of great help.

The main aim seems to be to inform the general public of the duties of the architect, and to point out to the prospective client the value of professional guidance to him, at a time when he is about to make that investment which is often the most important one in his career.

The general public is of course the whole population of a town, city or nation and includes people in all walks of life, even the architects who I think you will agree do not usually need to be instructed in this particular bit of information. It also includes the keen-minded business executive who in my estimation seldom needs to be told that professional advice is of real value to him. He is usually the quickest to avail himself of plenty of it as a matter of sound business policy. The wealthy client who intends to build himself a veritable mansion, or the public official who is directing a committee busily engaged in procuring for his community a much needed public building—these do not need to be told. They know that the architect is worthy of his hire.

This would seem to leave then the ordinary plain "John Citizen" who after all makes up the vast majority, and who will eventually get around to building a home for his family, to cost anywhere from $4,000 to $15,000. This is the client who needs to be told and this is also the client who in the past has been neglected by the profession. This is the fellow who is causing an endless discussion, most of which is also rather vague and aimless. It is upon this client that the vast majority of architects used to depend for maintaining the office intact; keeping their hired help busy the year 'round so that it was unnecessary for them to travel a hundred miles from home to obtain enough work to keep body and soul together for another "slack spell" soon to come.

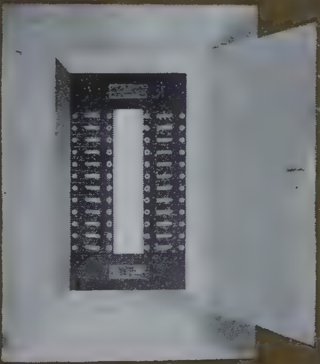
I have discussed this same client with every architect with whom I have come in contact during the last several years and in every instance I am able to recall, they all agree on one point of which I am writing.

To put it simply—in every city of any size the public officials have found it advisable to protect certain investments for the good of the community. Every building code has set up, in certain districts, a restriction stating that in this district no residence is to be erected which shall cost less than a certain amount; let us say $4,000. This is done, and wisely so, too, for the sole purpose of protecting the established value of the adjoining properties and to prevent unscrupulous persons from "jerry-building" a miserable shanty in a well established community and thus bring the wrath of the shanty's neighbors down upon the public officials.

Protecting the established values of a certain community is without question the only fair and right thing to do. Then let us suggest a certain additional protection to these people. Let us suggest that drawings and specifications for these proposed new residences, in such a restricted district, must bear the seal of a REGISTERED ARCHITECT before they can be granted a building permit.

Many will say, and truly too, that we already have too many laws and regulations. To these I would suggest that if it is proper to require a person to prove his ability by any form of State examination, and to pay regularly, a required fee, which will allow him to call himself a practitioner of his chosen profession: then certainly it is fitting and proper to allow no one who has not so proven himself, under the law, to attempt to perform such work, and full reason is present to deny a permit, to build from such contract documents.

Ⓕⓐ Panelboards and Switchboards, for Power and Light, are serving faithfully and well in these typical installations — in a palatial pleasure steamer, an educational institution and in an industrial plant.



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CRITICAL YOUTH WIELDS THE FLAIL

WHAT THE STUDENT EXPECTS

The responsibility of the critic is exceedingly great. To fully appreciate this, one has only to realize that many a student's viewpoint is frequently influenced by those of his critics. These students will soon build on the strength of those criticisms. The student's conception of "good and bad" architecture, of pleasing presentation, colors, capable men in the field, etc., often can be traced directly to his critics.

Unfortunately, the many new demands in the training of an architect cause the student's schedule to be highly concentrated, and the time allotted to each subject is almost the only time he has to devote to that particular study. This, we all regret, prevents the student from browsing, sightseeing, and meeting and knowing personalities—all of which would considerably supplement his design training. Since this is the case, the "design crit" becomes almost the vital source of the student's rules by which he works. That fact lends invaluable importance to what the critic says during a "crit," and upon the time he remains with the student. It calls to my mind a nest of young birds who stretch their mouths and blindly reach for the single morsel of food the parent bird is about to drop in the nest! It is their one source of food during their infancy; and vitally important to their growth.

It is not too difficult to imagine, then, why the student places a demand upon his critic and sets no limit to the amount he hopes to receive. It must also be kept in mind that schools have set themselves up to offer just this service and to make it possible to become an architect through this very instruction rather than the method of "pick up what you can," in an office.

Let us imagine the critic is due for a "crit." At the same time assume the student has work to be criticized:

1. It seems the student has a right to expect the critic to be on time, as the first consideration. Most students plan to have *new* work to be criticized, should they be the first to receive the "crit."

2. No student appreciates a hurried "crit." It does not leave a student very satisfied to prepare material and then be told merely that it will "work" or will not "work." One hears stories of old "patrons" who flattered the students by uttering *so much* as a few paragraphs! Students now are certainly much more inquiring and do not feel there should be great formal barriers between the students and their instructors.

3. A student likes a definite answer to a definite question. Nothing is more objectionable than a formal cryptic attitude, or a few subtle words which tend toward the abstract and leave no real impression as to the course to follow. Nothing can more easily cause confusion and frustration. At the same time the student should not expect the solution to be found without effort on his part.

4. Closely allied to the foregoing thought; a student expects a definite reason for any criticism. When a critic begins to sketch a revised scheme, it would be most helpful for him to expound his logic as he makes the changes and additions. The *reason* for changing a round form to a square one, the particular spacing of buildings, the arrangement of voids, or any similar performance is the essence of design, but frequently a critic goes through the motions without many enlightening comments.

5. A student likes to know the good features of his problem as well as the bad. Many students work best through encouragement and every student needs it to some degree. It is only fair to let the student know when he has achieved a pleasing result.

6. The critic who exercises patience and sympathy towards a grasping, eager, although frequently confused student, gets the greatest results. Each student is a special case. An indolent student needs prodding, but the same tactics with some conscientious student who might not be getting results would be disastrous.

7. Nothing is more confusing to a student than for a critic to contradict himself frequently on a problem. If it is necessary for a critic to change his opinion, he should acknowledge then and there that he is making a contradiction and give his reasons. No one knows quicker than the students when a contradiction is made.

8. A valuable course is for the critic to ask the student to explain

(Continued on page 14)

WHAT THE CRITIC EXPECTS

A student should be able to draw—both mechanically and in freehand perspective — so that he can express ideas clearly and easily. He must have the ability to do research and should assume responsibility for finding out the facts and history behind his design projects. He should be learning eagerly all that he can of materials and broadening his knowledge of construction. He must realize that all of his courses are architecture, design being the synthesis of all that he knows and can give, his profession.

He must have initiative and enthusiasm.

He should not have to be tricked into working efficiently.

He must be able to develop his imagination so that he can place himself within his projects, walk around them, see them in use.

He must continuously guard against merely drawing up the last criticism.

He should not follow criticism blindly. The reasoning behind a criticism should be understood—and believed. Critic and student should attempt to differentiate between reason and prejudice, go beyond today's clichés to simple, straightforward solutions. Their relationship should not be that of master and disciple, but man to man.

He should know, and feel, that the critic is less interested in having him produce superficially brilliant projects in school than in helping him develop his own power as a designer which will not reach its peak until he is a mature architect.

He must obviously be enjoying his work.

He must not be afraid of making a mistake—only of repeating one.

RICHARD M. BENNETT
New York Architect, Critic at Vassar, Yale, Pratt Institute

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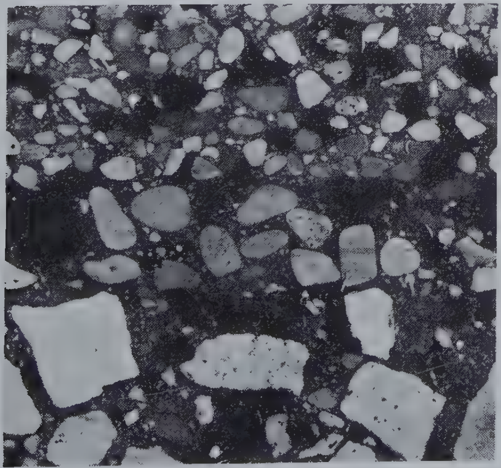

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MAKERS OF LONE STAR CEMENT • • • 'INCOR' 24-HOUR CEMENT just how *he* arrived at some particular, debated design. This offers an opportunity to find out if the student's reasoning is at fault, or just what the trouble may be.

9. If a student is weak on some point, he probably knows it as well as the critic does, and nothing is more depressing than for the critic to give only an unfavorable crit and then leave. Every student longs to know where he might find a book or see a building which would help him out of his dilemma, and the critic can suggest this, if he will.

10. The phrase, "personal interest," might be questioned as applied to the relationship between critic and student. However, every student hopes there exists some personal interest even though the number of students be large. What could kill the spirit of a studio more completely than to have the critic come and go like some inspector? It is my feeling that the spirit of any studio is due largely to the enthusiasm of the critic.

11. Frequently the presentation of a problem is left largely to the taste of the student, but a few suggestions from a critic can help considerably toward a more interesting presentation. This help may be nothing more than an inquiry as to what medium the student plans to use, colors, choice of perspective, etc.

12. No student likes to feel he is being restrained, but at the same time he wants his critic to tell him when his work is "not architecture."

13. If a student is stubborn and holds to a design which his critic has condemned, no responsibility rests on the critic. If a problem is frankly criticized by the critic over the period of the problem, I feel there should be no failures, provided the student cooperates and does not stubbornly hold to some idea. Throughout the period of the problem—the critic should so completely criticize all the major defects that the finished product should be "buildable" and of passing design.

14. Should a problem fail, nothing is more appreciated by the student than for his critic to go over the problem with him *voluntarily*. Frequently, the remark is made that the critic told the student to do a certain thing, that might have been unfavorably received by the jury. I feel the critic might at least recall this to the student himself, rather than to let it brew within the student; for certainly both know what happened. The respect of the critic and student for *each other* is vital, if any progress is to be made.

These thoughts are purely from a student's point of view. They have been assembled largely from the fine things gained from critics, rather than the shortcomings. It is hoped they are received in the spirit in which they have been written.

PAUL PIPPIN
Columbia University

THAT WORD AGAIN!

I'm writing as a recent college graduate who is aware of his youth and inexperience. But I do want to set down these thoughts.

I would like to say that I thought Mr. Delano's letter in the November issue was as sound as anything I've read. I was particularly impressed by his deflation of the familiar slogans employed by present-day architectural writers.

One thing, however, might help students in their search for a method of design while under the influence of existing teaching systems. That is —a broader concept and application of the term "functionalism."

Is not functional design more than just the satisfying of economic requirements, space relationships, and orientation? If we stop there we have lost the most vital part of architecture, that which raises it to the level of an art. We all know the importance of creating a definite impression of beauty and harmony and fitness. Well, then, if buildings are built for human usage — isn't this functionalism in its highest form?

An example: people must be kept happy and mentally stimulated in their immediate environs. While it is true that they constantly need new thoughts in the design of these environs in order to accomplish this, it is equally true that a complete break with the old familiar thing is quite disconcerting. This is so often evidenced in the type of architectural treatment preferred by people in their residences — as contrasted with their commercial buildings.

Such factors as this are of greatest import in functional design. I hope we youngsters don't forget them in the mad rush for circulation, orientation, and economy.

JOHN B. DODD
St. Petersburg, Florida

APPROACH TO BEAUTY

Some years ago, on a sunny, warm afternoon, I walked for the first time through the buff, Cordova-stone doorway into the foyer of the Architecture Building of the University of Texas. For no material reason, I felt a thrill then, psychic, which I cannot describe, and which I shall never forget. I had made a big step into the future, and something of my inner nature was aware of it. From that day on, I have been living a mental evolution. My conventional Hispanic background, of which I am very proud, and which had stood in the foreground of my way of thinking like a massive oak commanding an autumn landscape, acquired new, rich values. The blue-grays became greens. The yellows became cadmiums, and the sepias are becoming vermilions . . . When this change took place I began to appreciate modern architecture, abstract composition, and Brahms . . .

My world began to take shape as a true paradise. I had often looked at the complex, voluptuous surfaces of the churrigueresque façades at dawn. I had looked at the trees, at the snow on the mountain tops, at cobalt and emerald skies . . . I *had* been looking at paradise. I *had* been living in a wonderful world, *and I did not know it*. But I have found the abstract beauty in forms, sounds, and color.

Therefore, I feel the architectural instruction I am getting is a systematic approach to beauty; but only an approach, because beauty cannot be fully grasped by us, humans. Beauty is purer, more spiritual than our element. Those who can express it in material forms — music, painting, sculpture, architecture . . . are few, and those who can combine function with beauty are fewer. Only those men who belong to the second group can become architects. The school must develop their abilities—it cannot create them. And it should give them a closer contact with the abstracts in architecture: composition, refinement, and sensitivity.

We have reached an age of specialization. Architecture will continue to divide and subdivide as it interweaves with all the other branches of science, but in general the architect should be the specialist who brings beauty to this world.

JORGE GONZALEZ REYNA
University of Texas

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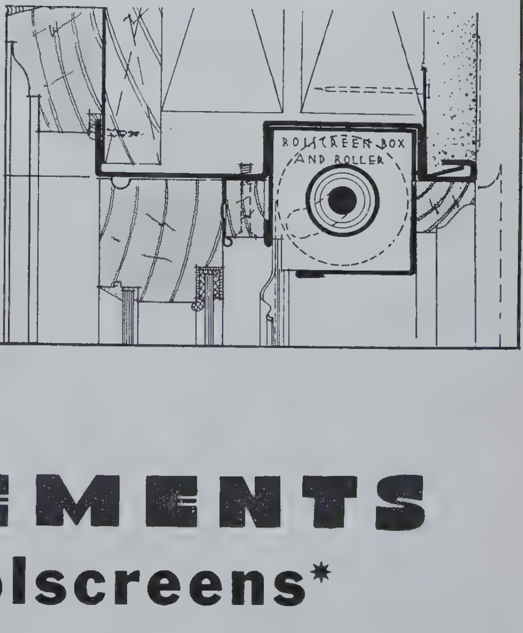

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HERE, THERE, THIS & THAT

OUR CONTRIBUTORS

Plates in this issue are devoted principally to shops by well-known designers whose widely varying backgrounds and careers are unmistakably reflected in their work. Here are a few facts to explain that statement:

Antonin Raymond, who designed the Pitt Petri Shop in Buffalo (pages 1-10), enjoys an international reputation as an inventive, yet thoroughly practical designer. A Czech by birth and now a citizen of the United States, he first came to this country as a young man and worked in some of the largest New York offices. During the World War he headed the Geneva Office of the U. S. Intelligence and after that went to Japan with *Frank Lloyd Wright* to work on the famed Imperial Hotel. He soon broke away to establish his own practice and remained there for 20 years designing and building more than 600 structures, including factories, industrial and office buildings, hospitals, shops, embassies, clubs, and residences. Some of the best known of these are the Women's Christian College, St. Luke's Medical Center, the Ford Factory, and the American Embassy in Tokyo. Returning to the United States two years ago Mr. Raymond organized a cooperative group of young architects now living and working under his direction at his farm and architectural headquarters in New Hope, Pennsylvania, where the Pitt Petrie detail plates shown in this issue were drawn. He also maintains a New York office.

Albert Harkness, whose showrooms for the Gorham Company are pictured (pages 11-15), has just completed a three-year term as the New England Director, A.I.A. He graduated from Brown University in 1909 and went to M.I.T., where he received his architectural degree in 1912. His professional experience has included work in various New York offices including those of Delano & Aldrich, H. Van Buren Magonigle, and McKim, Mead & White.

The two designers responsible for the John-Frederics Shop (pages 16-20) are *Rene C. Brugnoni* and *T. H. Robsjohn-Gibbings.* Mr. Brugnoni, who has practiced as an architect for six years, including work with the architectural department of the New York World's Fair, studied at Columbia University, Pratt Institute, and Hirons Atelier. He is a native of France and has lived in this country since infancy. His associate, Mr. Gibbings, is a native of London and studied architecture in Paris and Rome. Before establishing his own firm he was associated in London with Rufus, Ltd., of Bond Street and in New York with the late Charles Duveen. It is Mr. Gibbings'

(Continued on page 18)

Beginning with the February, 1941, issue, Pencil Points will carry as a regular feature a section devoted to PUBLIC RELATIONS. This section will be conducted by *David Knickerbacker Boyd,* F.A.I.A., of Philadelphia, who has for years been unselfishly devoting a large part of his time and energy to promoting better understanding by the public of the nature and value of the architect's services.

We are beginning this new department in the firm belief that even in the midst of the preparedness program there is a vital need for the profession of architecture to cultivate greater general appreciation of the important part it plays not only in the building industry but in the improvement of man's environment through invention and planning. We might even fairly say that the defense activities now going on make it even more important for society to recognize and make use of the high technical planning skill possessed by our profession.

The objective of the Public Relations Section will be to furnish information that will be of use to individual architects and groups of architects who are striving everywhere to overcome public apathy, or uninhibited extra-professional competition, or both. The material we print will be compiled from the point of view of the interests of the *whole* profession of architecture, including all reputable architectural societies, institutes, leagues, or whatnot, and all professionally minded architects, architectural draftsmen, and architectural students. Except when otherwise noted, any practitioner or group will be privileged to make use of any of the ideas presented or even of the literal text of radio talks, printed articles, letters, and any other types of material presented. We will furnish the ammunition; it will be up to you to make use of it.

As Contributing Editor, Mr. Boyd enters on this new venture in a spirit of enthusiasm. He brings to it wide experience and an accumulation of valuable data. Neither he nor the publishers, however, can succeed in making the new section of maximum value without the lively and continued cooperation of architects and their staffs, individually and through their Institute Chapters, State Associations and Societies, or local groups. Equally desirable is the cooperation of those other elements in the building industry interested in improved design and specifications, more and better construction, and closer public relations.

Mr. Boyd has well said, "The public still needs to be much more fully informed as to the services which competent architects perform and as to their cooperation with good engineers and reliable contractors, sub-contractors, manufacturers of quality materials, and all conscientious craftsmen." On the extent to which all of these elements lend their assistance to Mr. Boyd will depend the effectiveness of the new Public Relations Section. We wholeheartedly bespeak this assistance.

Kenneth Reid

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HASKELITE *Compound Lumber* **FLOORING**

(Continued from page 17)

theory of interior design that the talents of American cabinetmakers and decorative arts craftsmen (he pronounces them the finest in the World) should be enlisted for each new building. He has put his theory into practice when designing commercial work and some of the most important residences in New York, Philadelphia, Palm Beach, Houston, Los Angeles, San Francisco, and Hawaii.

Bloch & Hesse, whose work during the past six years as architects for the Schrafft's Stores of New York, Boston, and Philadelphia is indicated by the presentation in this issue (pages 21-30), have engaged in architectural practice since 1913 when *Ben Charles Bloch,* Cornell '12, and *Walter Hesse,* Columbia '13, astonished themselves by winning the competition for design of the Beth Emeth Synagogue in Brooklyn. This started them on a general practice which has included residences in all price classes, hospitals, and other institutional structures, principally in the New York area. For 17 years they have been architects for the Brooklyn Borough Gas Company. Their work in this connection received recognition from the Brooklyn Chamber of Commerce in an award for "The Best Industrial Buildings in the Borough in 1933."

The architect of "The Spinning Wheel" (pages 31-34) is *William W. Dodge, Jr.,* of Asheville, who has been in practice since 1924. He also is a maker of hand-wrought silver and his workshop and drafting room built eight years ago in Biltmore Forest, Asheville, is always busy. His practice is general but he writes us, "Clients suspect a good silversmith must be a poor architect. Probably correct!" A native of Washington, D. C., Mr. Dodge attended Exeter and Princeton before transferring to M.I.T. where he received his architectural degree in 1916. War and hospital service and some time in classroom teaching intervened before he started his architectural practice in Asheville.

The technical articles this month devoted to the subject of welding and welding inspection were contributed by *Van Rensselaer P. Saxe,* Consulting Engineer, of Baltimore, Maryland, and *Herbert R. Isenburger,* President of the St. John X-Ray

(Continued on page 19)

(Continued from page 18)

Service, Incorporated, Long Island City, founded by Dr. Ancel St. John, one of the pioneers in the X-ray examination of metals. Mr. Saxe is Chairman of the Joint Committee of the A.I.A., Maryland Society of Architects, Baltimore Building Congress, and Standard Specifications Committee which recently completed a standard building specification for construction in Baltimore and vicinity. He is a member of the American Welding Society, A.S.C.E., National Society of Professional Engineers, and a past President of the Baltimore Building Congress and Exchange.

POTOMAC PATTER

Holidays, history, and *la grippe* have all contributed in their own peculiar ways to a somewhat dizzy feeling that only a bed and codeine-sulphate could appease. And, Brother, that codeine-sulphate really sets you spinning!

Without benefit of drugs, one good habit we have acquired is attending the winter dinner-meetings of the Association of Federal Architects. At these ultra-plus affairs (ultra plus $2.00) the Federal lads donned their "soup and fish" for an evening of back-slapping, elbow-bending, and such other genteel cavorting as is appropriate to an Occasion.

The occasion being the Thirteenth Anniversary of the founding of the Association and, as usual, the prizes and awards garnered in the Spring Exhibit by the various Governmental architectural units or individuals were formally presented. On this night, as on no other night, there are gathered the *èlite* of the profession—in government service and without. The guest list looks like a "who's who" politically and professionally. I will give you a for-instance: *Rear Admiral Ben Moreell*, Chief of the Bureau of Yards and Docks, Navy Department, was on hand to receive the Association's bronze medal for his Bureau's consistently high standard of work. In accepting the award, Admiral Moreell said that in the present emergency he was thankful to have the assistance of private architects, augmenting the work of the regular men in his Bureau.

Brig. Gen. Frank T. Hines, Administrator of the Veterans Administration, was there to discuss the architectural and present war situa-

(Continued on page 20)

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HASKELITE *Compound Lumber* **FLOORING**

(Continued from page 19)

tion and to commend the profession in general and Government architects in particular for their loyalty, etc. mentioning of course the fact that they "probably could earn twice their present salary—in private practice" (or in carpentry—RED's note).

Hon. Nathan Straus, Administrator of the U. S. Housing Authority, finally made it. Year after year, Mr. Straus's invitations had come back—"Deeply regrets"—"Pressure of business"—"Previous appointments" etc., but this time he graced the festive board and when perennial Toastmaster *Edward Bateman Morris*, Public Buildings Assistant Superintendent of Architecture, called upon Mr. Straus for a few words, he "gave" in a manner no previous Association guest has been able to match. He spoke of architects and architecture thusly: "Architects have been responsible for the 'stuff and fabric of which our civilization is made.' The turning point in man's history, was when men stopped tending flocks and settled down to till the soil 'and build their homes.' The Architect's is a venerable profession, but one which in the public mind does not have the honor which should be accorded it. Not enough can be said to describe the unselfishness, devotion and hard work of their profession."

A certificate of honorable mention won by the Construction Division, Office of Quartermaster General, War Department, was accepted by *Major E. W. Walters*, who reiterated Admiral Moreell's words, especially about the private architects. We have heard, however, that if some of the private practitioners now doing War Department work don't "pep up and produce," they are very liable to be partially paid-off and told to surrender their projects. After all, they are operating on a cost-plus contract.

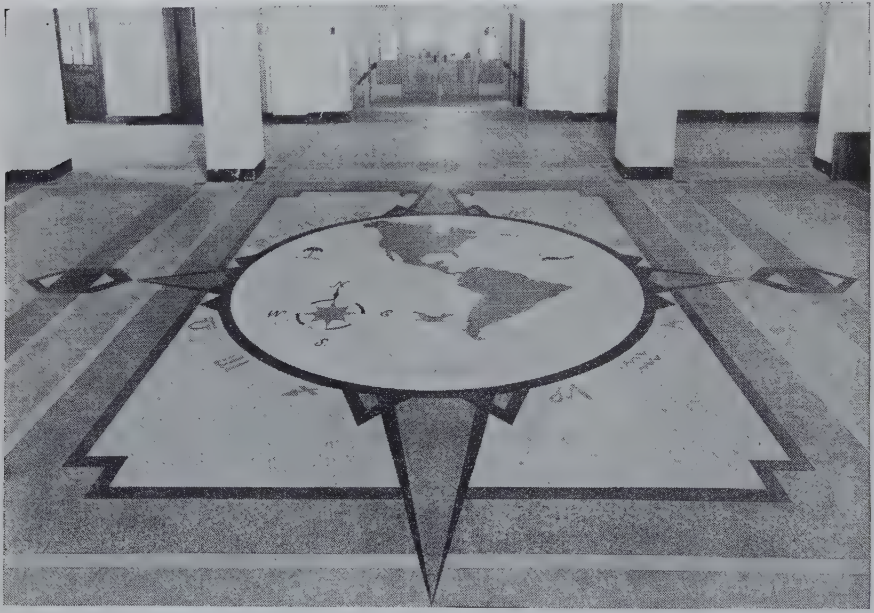
Many awards were won by Public Building men, such as *Harbin "Jug" Chandler, Ed. B. Morris, Jr.* and *George Guppy*, but for some reason or another the P. B. crowd is not turning out for these affairs. So, *Superintendent of Architecture W. G. Noll* beamingly accepted the awards in their behalf. He did have a little competition, though, with *Fred W. H. (Warehouse) Boettcher* arising to "accept by proxy" but slithering over to the head table just exactly too late!

Among the other guests of honor were Agricultural Department representatives *G. R. Boyd*, Chief of the Bureau of Architectural Engineering; *Paul P. Stewart*, Executive Secretary, Project Committee; *Albert L. Wathen*, Bureau of Indian Affairs; and two members of the jury of award architects, *Louis Justement* and *Louis Skidmore*. *Karl W. Hartig*, Navy's Yards and Docks, was chairman and also presented the Bronze Medal to his boss, *Admiral Moreell*. *H. A. Magnusson*, Vice President, presented the certificates but not until he gave a long spiel on the meaning of the certificates! (As if we didnt know.) But Hank does more than speak: he sings too. It's the old home-talent team of *McMahon* (John J.) and *Magnusson*, only they don't sing together. In a way, it's a bit of a competition, with our money on Johnny. He ran "Old Man River" dry while Hank just barely cleared the sky over "Home on the Range."

The educational value of these meetings is not to be overlooked. As the feature entertainment of this evening a take-off on "Information

(Continued on page 24)

SURE, IT'S A TOUGH WORLD...



Pulaski High School, Milwaukee, Wis.
Architect, Guy E. Wiley

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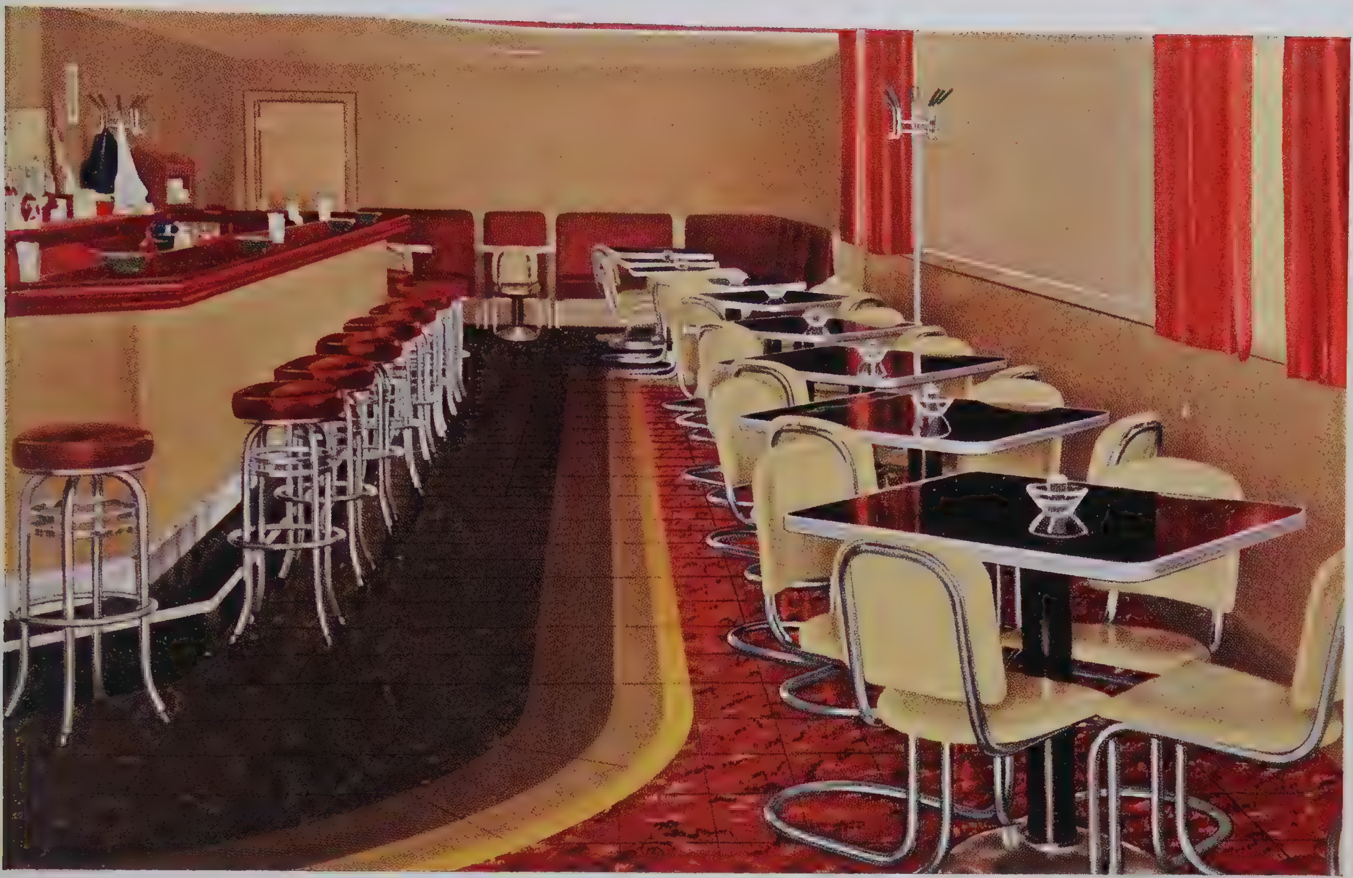

Every budget dollar does double duty in the Cocktail Lounge of the Ray-Ott Club, Niagara Falls, N. Y., thanks to Armstrong's Asphalt Tile. Field of cinnabar. Inset bands of Malay brown, saddle tan, and buff. Architects: W. A. Cannon and C. R. Phelps; Contractor: W. S. Johnson Bldg. Co.; Designer: J. Ullmann, Jr.; Floor Contractor: Niagara Linoleum Company.

Architect Allen had "specs" before his eyes

THERE'S nothing new about Allen's clients expecting the most lavish interiors on a limited budget. But Allen's solution to this problem may be new to you. His "specs" read: "Low-cost Armstrong's Asphalt Tile Floors" and thereby promised a look of luxury to every room.

The client wanted style. From the 41 rich plain and marble patterns in Armstrong's Asphalt Tile, Allen had an easy time planning stylish designs. Special factory-cut insets helped him add further distinction to this colorful flooring.

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How about *your* clients? Installation of Armstrong's Asphalt Tile can be made quickly and easily (a block at a time, by hand). Want more information? See "Sweet's" or send for free booklet—"Low Cost Floors with a Luxury Look." Armstrong Cork Company, Building Materials Division, 1206 State Street, Lancaster, Pa.

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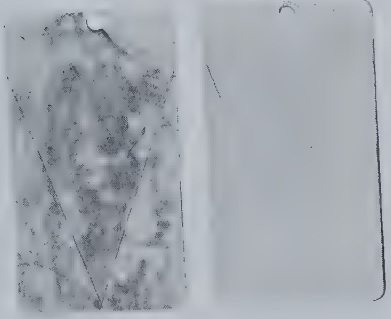
HOW BONDERIZING HOLDS PAINT AND PREVENTS CORROSION



A galvanized section finished with two coats of paint. Exposed in Florida 18 months. Paint peeled from most of the surface.

A galvanized and Bonderized section. Finished same as section at left. Exposed in Florida 18 months. Surface O. K. Adhesion good.

Send for This Book:

It gives you the information you want about Parker Processes. It lists the products to which they are regularly applied and names many of the companies using them in their finishing systems.

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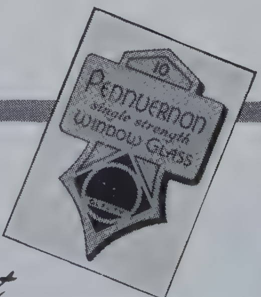

PENNVERNON WINDOW GLASS
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"PITTSBURGH" stands for Quality Glass and Paint

(Continued from page 20)

Please" was presented. The questions, however, dealt only with architectural subjects and the experts were *Dr. Leicester B. Holland*, Director of Fine Arts Section, Library of Congress; Consultant Architect *Rudolph Stanley-Brown*, Public Buildings Administration; *Louis Justement* and *Horace Peaslee*. They did right well by the profession, including the interpretation of visible design elements presented in a chalk questionnaire by *Arthur L. Blakeslee*, Chief Ornamentalist of Public Buildings.

The sixty-odd attendees of this month's A.I.A. Chapter meeting enjoyed an evening of refreshing education also. *John Nolen, Jr.*, Director of Planning for the National Capital Park and Planning Commission, spoke on "Zoning"—which subject is more or less an unknown quantity among our local practitioners. And to outsiders *definitely* — as witness, *Frank Lloyd Wright's* Crystal City Plan. He seems to have his hands full with the zoning Commission on the gigantic scheme. Wait until he hits the Building Inspector's Office with his structural ideas. Did you see the piece about his Kansas City Church?

Happy New Year to you-all!

RED

GREATER SERVICE

The New York Chapter, A.I.A., at its meeting of December 17th, made history, so to speak, by dipping deeply into its reserve funds to start the profession along the road to better public understanding and appreciation. The resolution which was passed unanimously was as follows: "BE IT RESOLVED that a sum out of the Contingent Reserve Fund of the New York Chapter, A.I.A. not to exceed $4,000, be made available to a Special Committee to be appointed by the President, to study ways and means of making the architectural profession of greater service to the public and thus to clarify the architect's own position; said Special Committee to report back to the Executive Committee for approval of its proposed program."

The intention of the Special Committee, as disclosed during the discussion, is to seek expert advice for the development of a far-reaching plan for public relations activity, eventually on a national scale.

CLUB NEEDS FUNDS

The *Boston Architectural Club* is appealing to all members, former members, and friends for donations to a fund by means of which to pay off the mortgage on the Club building, thus eliminating annual interest payments and putting the Club on a wholly self-sustaining basis. Unless sufficient money can be raised, the Club may lose its famous building, with its Great Hall and Memorial Library, and sustain a crippling blow to its educational activities.

The Club has had a long and fruitful history. Hundreds of men now practicing architecture in different parts of the country, and other hundreds working as draftsmen and designers, received their first instruction in architecture at the Club Atelier. This notice is printed in the hope that it may catch the eye of some of these men, who might welcome the chance to show their gratitude by contributing toward saving a landmark in American architectural education. Contributions may be mailed to the Club or to *Charles D. Loring*, President, 7 Water Street, Boston.

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WHAT IS CIVILIAN DEFENSE?

A GUEST EDITORIAL BY CHESTER LINDSAY CHURCHILL

America is now arming for defense. Defense divides itself into two parts: the constructing of vast military forces on land and sea and in the air, and the strengthening of the morale of the civilian population, principally by formulating and carrying out a program for civilian defense. The latter is as urgent and as necessary as the former.

It has been said that "Armies fight as the People think." Correct public thinking is a result of an intelligently built morale. A high national morale is fostered and achieved by well-planned and closely coordinated programs which, well carried out, will give to the people an adequate and safe defense. The work of planning civilian defense in no sense duplicates the work of the military forces, but must be made equally strong, coordinating with it.

The answer to our democratic aim of bringing about the integration of the various elements of society within a frame of national and social purpose is timely planning and building by men of qualified technical and scientific minds. With competent minds of this sort leading the way, civilian defense takes the aspect of a long range program of an enlarged permanent order of things, capable of being not only tremendously effective and helpful under the present state of affairs, but equally so in case of war.

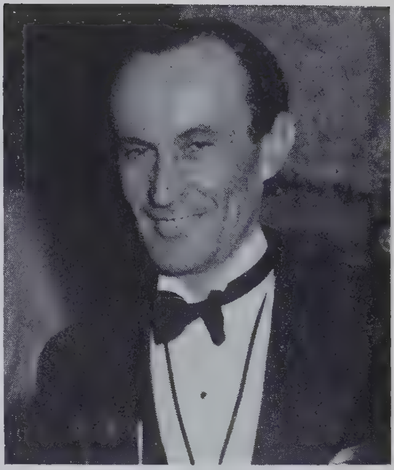
The architects of this country are ideally fitted, by their specialized training and experience, to fulfill the needs of the technical requirements for planning purposes, which become the very foundation of civilian defense. With them also qualify the Landscape Architects, Engineers, and Planners, for all of these fields are interrelated in the total technical requirements of the civilian defense program. Germany, recognizing this fact, has made intensive use of technical minds to produce results through thorough and detailed planning for all projects, great and small, military and civilian.

It is probably true that the capabilities of Architects, Landscape Architects, Engineers, and Planners have not been made use of as much as they might have been by Federal and State Governments—and the fault may be somewhat our own. We should not only have faith in our abilities to solve these technical problems and willingness to work hard to make the solutions effective, but also should act vigorously and concertedly to make our contributions not only thoroughly understood, but indispensable. In the professional field just mentioned, there should be the most willing cooperation of the personnel of all of its divisions; there should be the complete elimination of all professional jealousies, as the best means for the advancement of all in a common cause; and finally, there should be a singleness of purpose wholeheartedly subscribed to by all, in order to make our efforts felt.

We cannot expect the Government to do all of the work for us. That is not the way of a democracy. The work to be done must be done by the people of the democracy itself in cooperation with the Government. In carrying out this principle, however, the fact must be realized and respected that world conditions have changed, and that we have now entered a highly technical phase in the life of mankind. The proper application of technical skill is necessary to the triumph of democracy.

To the Architects, Landscape Architects, Engineers, and Planners, therefore, comes this challenge to assist—a challenge which they can effectively accept, because they are fitted. The challenge must be accepted immediately. There is no time for the United States to lag in the matter of civilian defense. Let us further and push forward a plan, letting it evolve more effectively as we go, putting ourselves in a position to help the Government, and not waiting for the Government to help us.

THE PITT PETRI SHOP IN BUFFALO



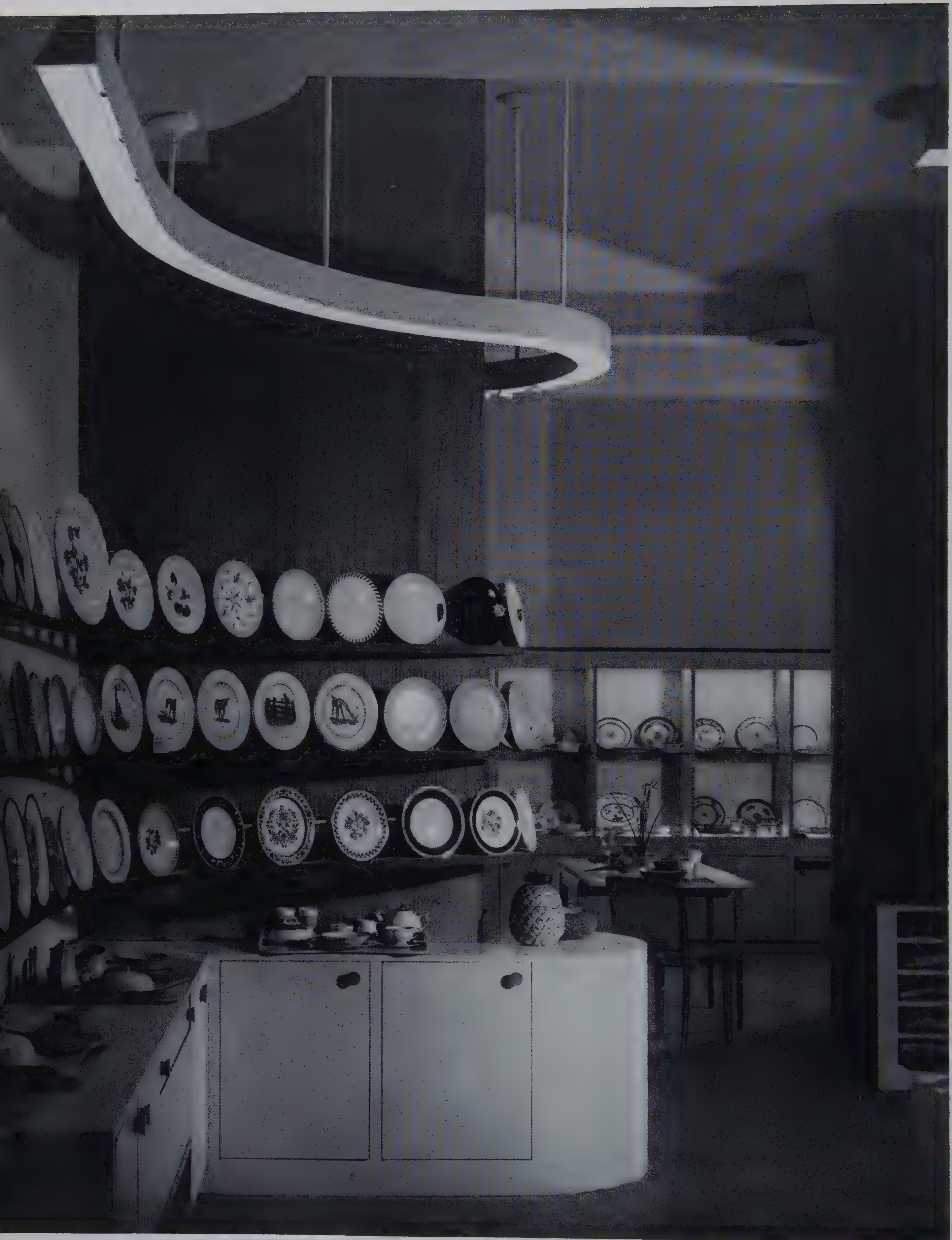
ANTONIN RAYMOND, ARCHITECT

MAX ZIMMERMAN AND EDWIN HARRIS, JR., ASSOCIATES

A. EDWARD JOHNSON, CONSULTING LIGHTING ENGINEER

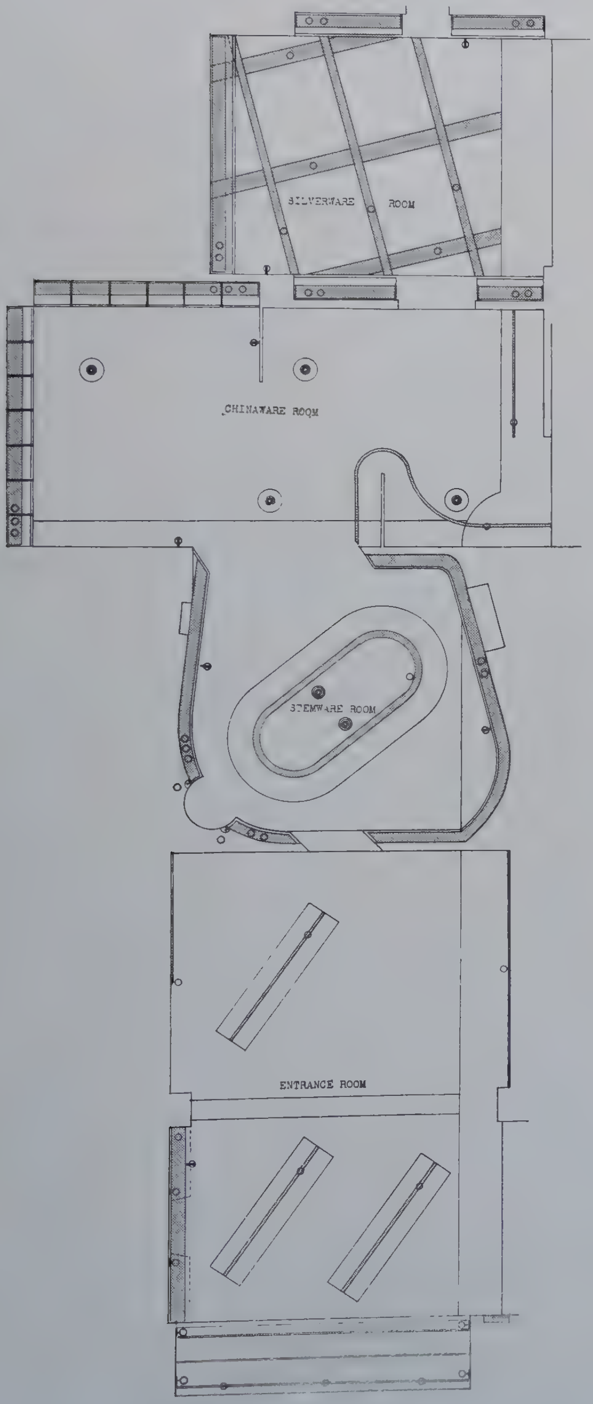
PROBLEM—INCREASE SALES BY ENLARGING THE SHOP AND BY SO EQUIPPING IT AS TO DISPLAY ALL THE MERCHANDISE TO THE GREATEST POSSIBLE ADVANTAGE

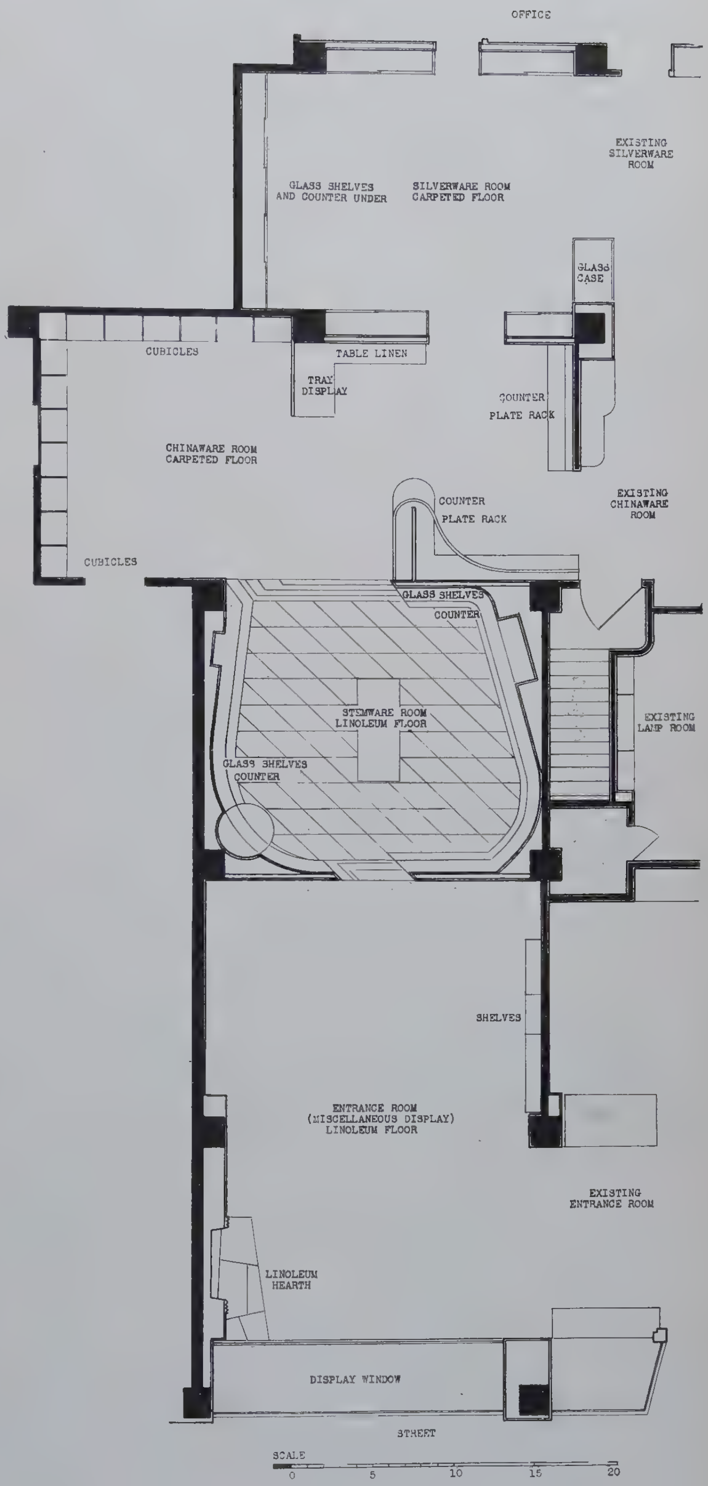
SOLUTION—BASE THE DESIGN PRINCIPALLY ON LIGHTING, USING BOTH INCANDESCENT AND FLUORESCENT BULBS. FINDING MOST SUITABLE BACKGROUNDS FOR THE DIFFERENT TYPES OF MERCHANDISE BY EXPERIMENTING WITH LIGHTS, COLORS, AND TEXTURES. OPEN UP THE PLAN, CREATING VARIED SPACES AND INVITING VISTAS. USE MECHANICAL FIXTURES, INCLUDING AIR CONDITIONING DUCTS, IN THEIR MOST EFFICIENT AND PURELY FUNCTIONAL FORM AND PLACE, COORDINATING THESE IN SUCH A WAY THAT THEY BECOME THE ONLY DECORATIVE ELEMENTS IN THE SHOP.



CHINAWARE ROOM—THE SUSPENDED LIGHT TROUGH DRAMATIZES THE SERPENTINE PLATE RACKS OF DARK GREY. THE WOOD USED FOR THE PARTITIONS IS NATURAL WALNUT, WITH GREEN GOLD-LEAF EDGES

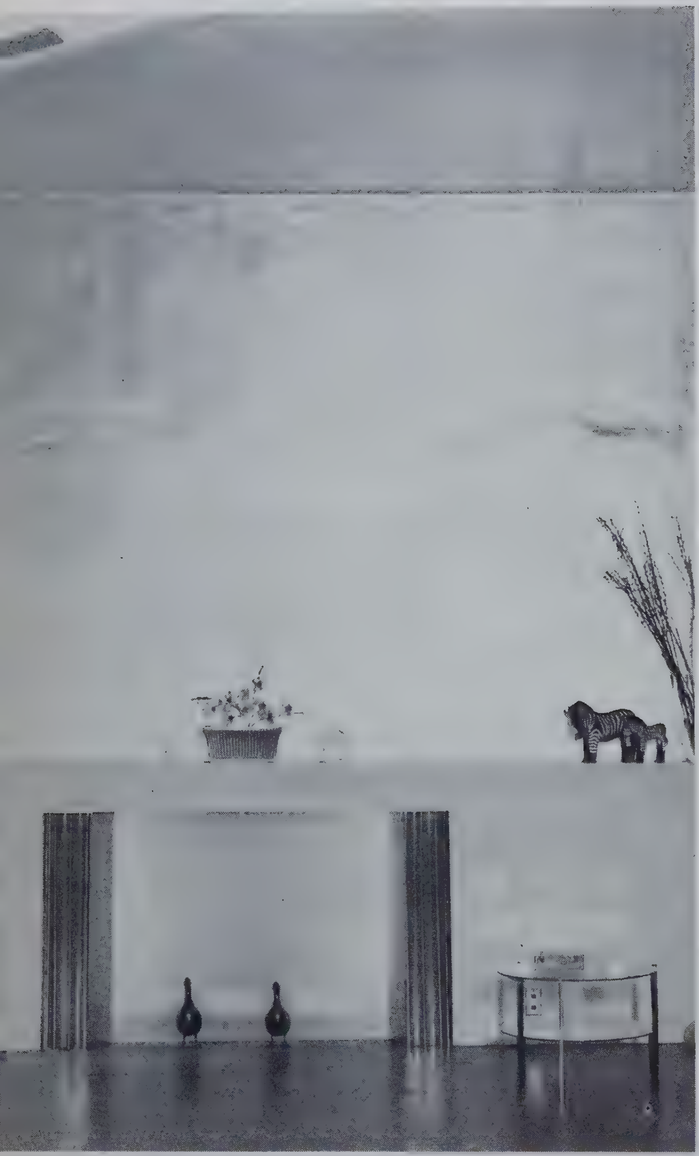
THE KEY PLAN BELOW FOR ELECTRIC SPECIFICATIONS AND LIGHTING FIXTURES OF THE PITT PETRI SHOP, DESIGNED BY ANTONIN RAYMOND, ARCHITECT, OF NEW YORK AND NEW HOPE, PENNSYLVANIA, MAY BE COMPARED WITH THE PARTI OF THE SHOP AT THE RIGHT—WHICH IS ESSENTIALLY A REFLECTION OF THE LIGHTING SCHEME. PHOTOS OF THE SHOP ARE BY J. DEBUS, BUFFALO



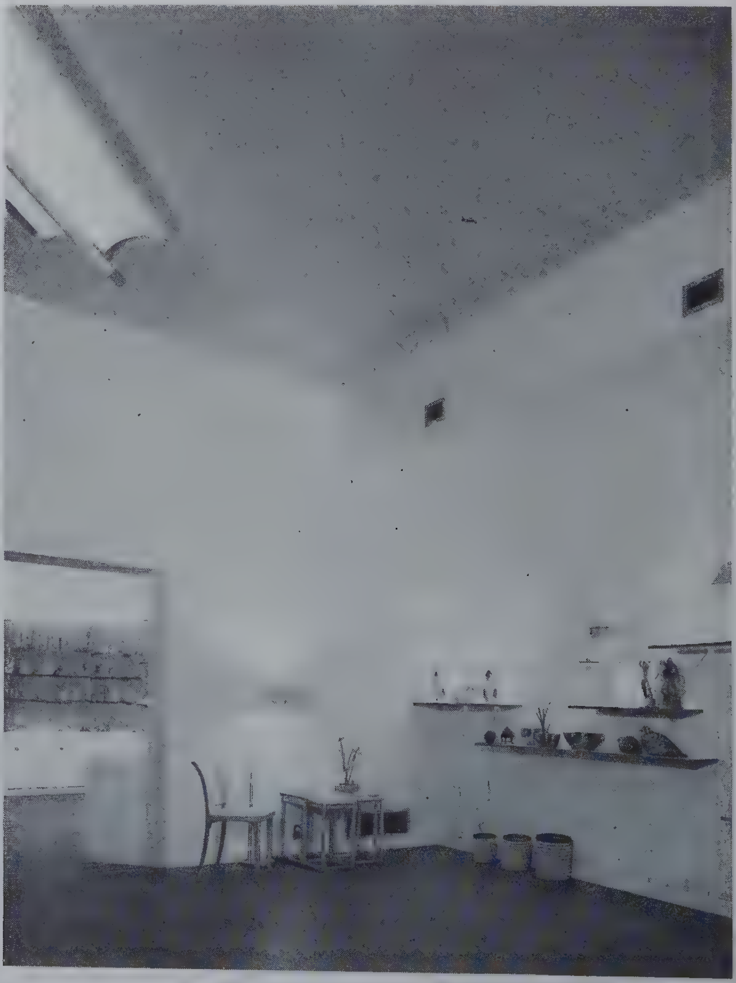


IN EXAMINING THE GENERAL PLAN OF THE PITT PETRI SHOP IT SHOULD BE NOTED THAT THE PORTION DESIGNED BY ANTONIN RAYMOND DOES NOT CONSTITUTE THE ENTIRE AREA OCCUPIED. THESE SHOWROOMS, HOWEVER, WERE BUILT TO PROVIDE A SYMPATHETIC MERCHANDISING BACKGROUND FOR THE SILVER, CHINAWARE, GLASSWARE, LINENS, AND OTHER PRODUCTS SOLD BY THE SHOP

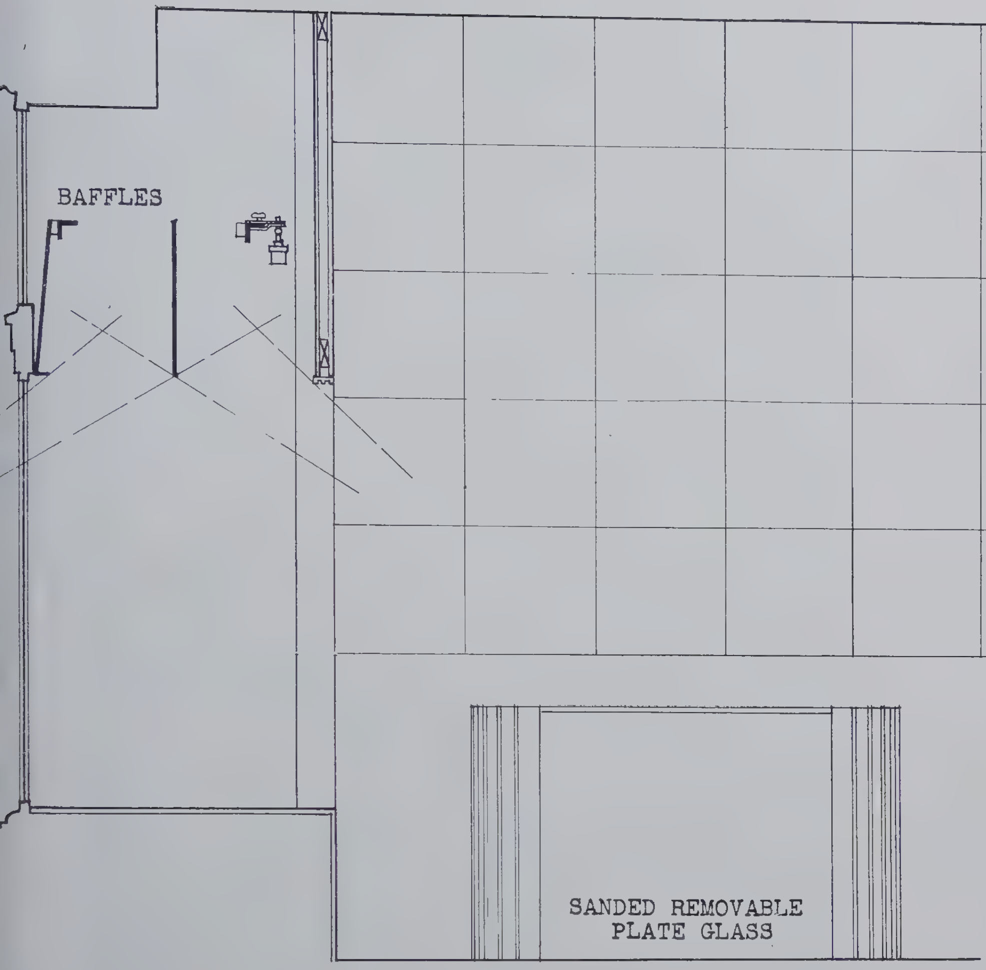
PITT PETRI SHOP, BUFFALO—BY ANTONIN RAYMOND, ARCHITECT



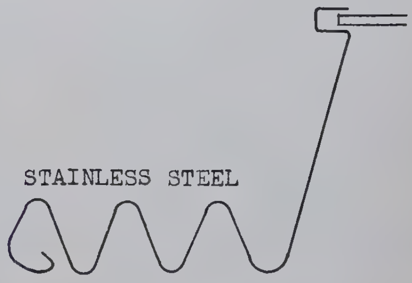
IN THE ENTRANCE ROOM OF THE SHOP THERE IS A SUGGESTION OF A FIREPLACE, WHICH SERVES TO DISPLAY FIREPLACE ORNAMENTS AND EQUIPMENT. THIS HAS AN ILLUMINATED GLASS BACK, STAINLESS STEEL PILASTERS, HEARTH OF COLORED LINOLEUM, AND OVER-MANTEL OF SILVER



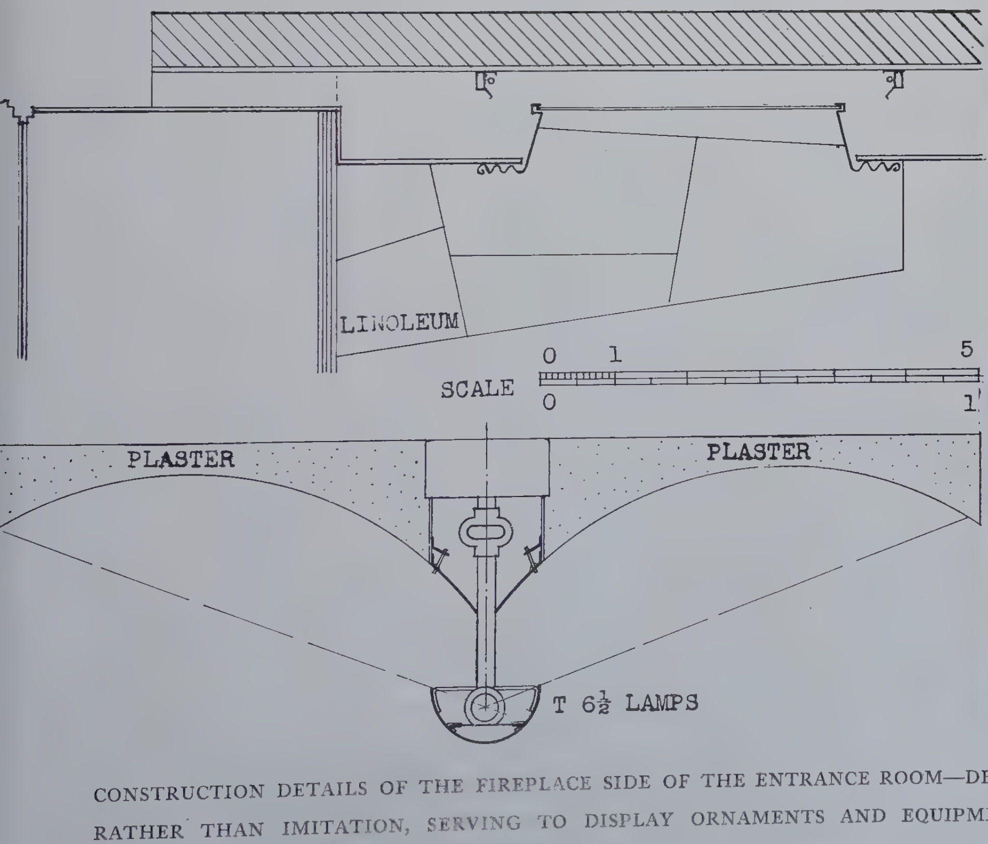
ANOTHER VIEW IN THE ENTRANCE ROOM SHOWS THE FREE DESIGN OF THE SHELVES FOR DISPLAY OF LAMPS AND OTHER LIGHTING FIXTURES. WALLS ARE COLORED DEEP SALMON AND ROSE AND MR. RAYMOND DESCRIBES THE CEILING AS "SUMMER SKY BLUE." FLOOR IS LINOLEUM



FIREPLACE IN ENTRANCE ROOM



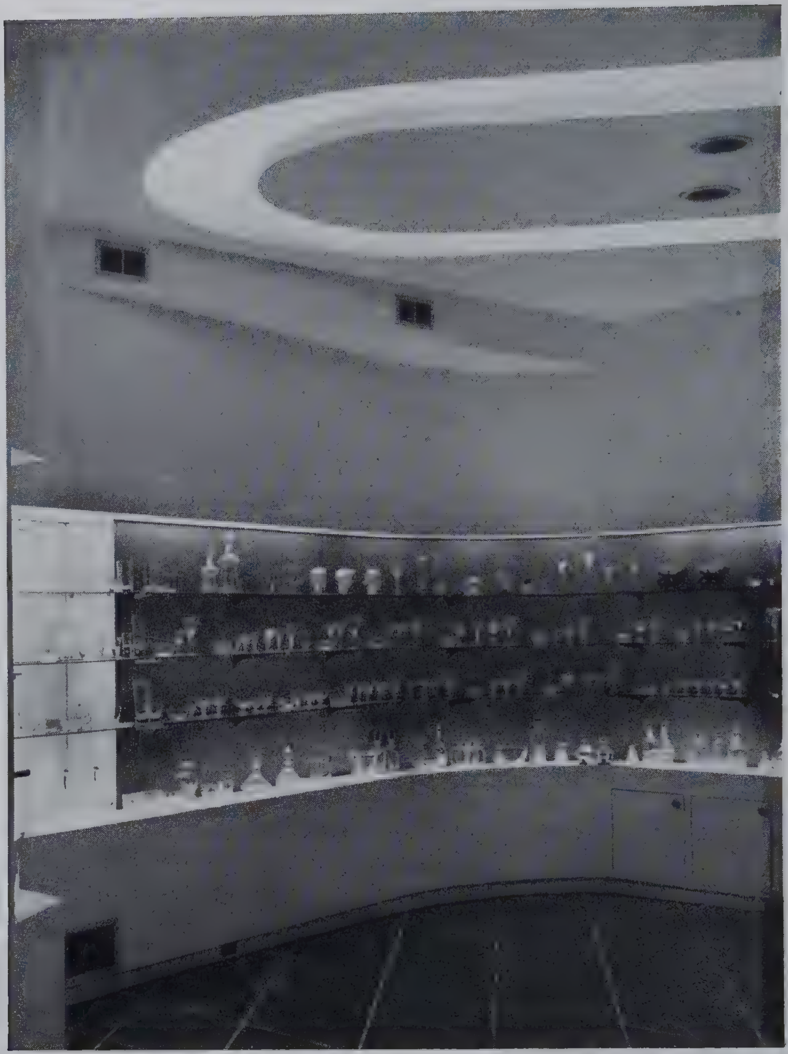
LIGHTING FIXTURE

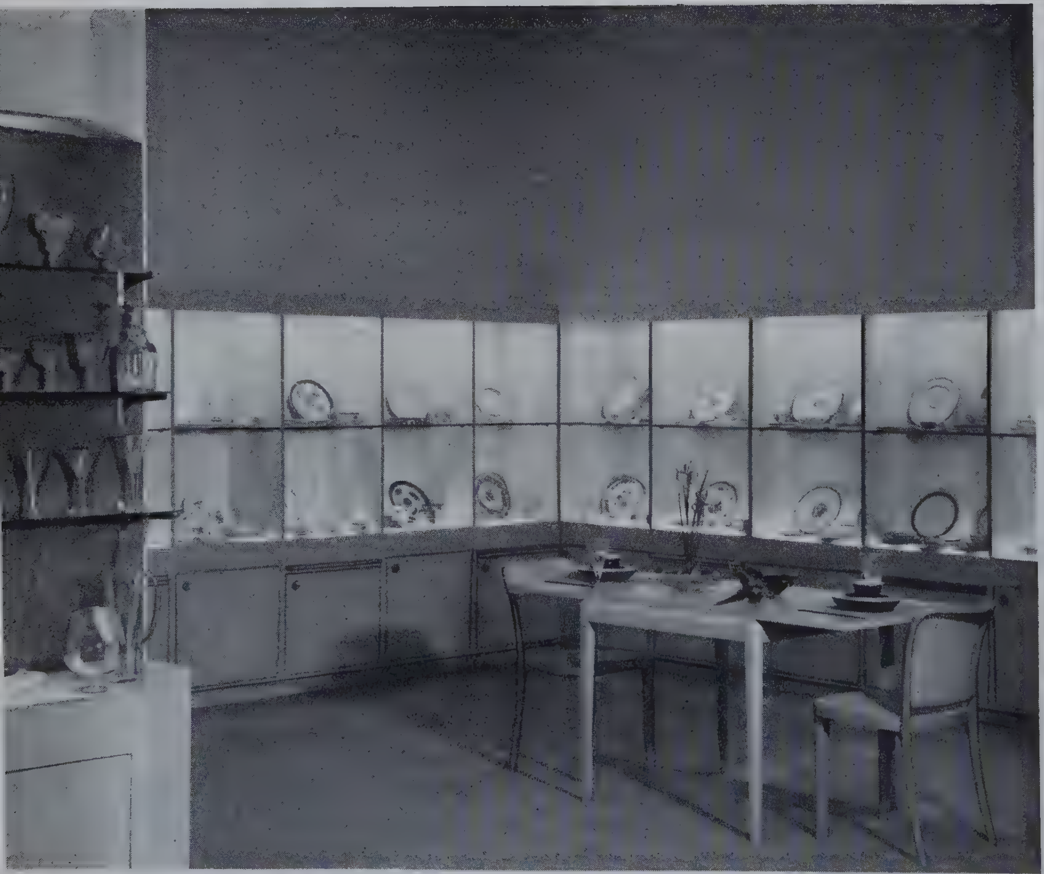


CONSTRUCTION DETAILS OF THE FIREPLACE SIDE OF THE ENTRANCE ROOM—DESIGNED AS A SUGGESTION RATHER THAN IMITATION, SERVING TO DISPLAY ORNAMENTS AND EQUIPMENT FOR THE FIREPLACE

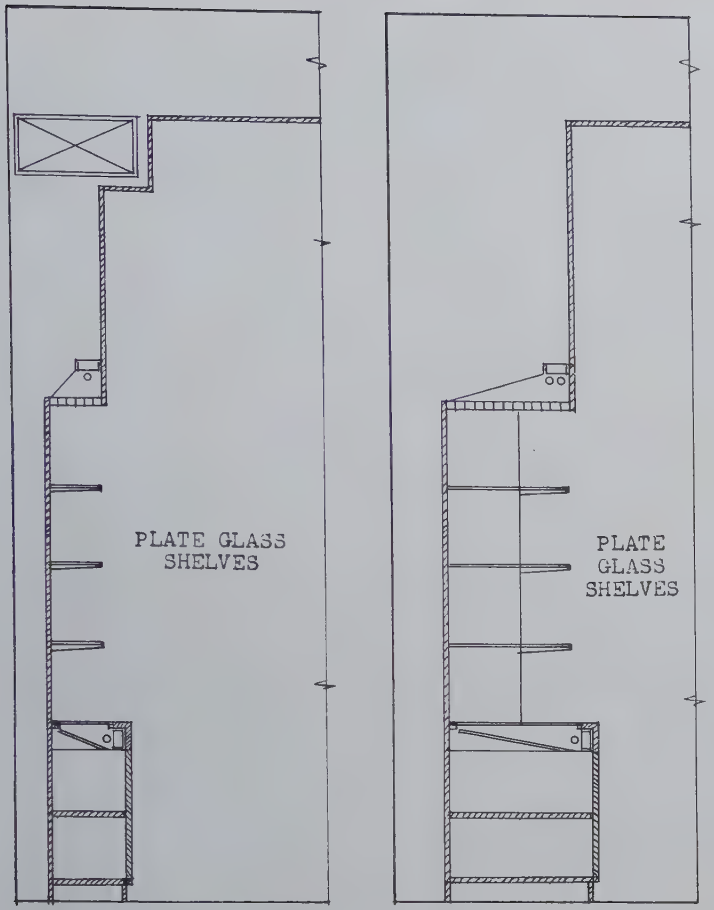
PITT PETRI SHOP, BUFFALO—BY ANTONIN RAYMOND, ARCHITECT

STEMWARE ROOM—THE FLOOR OF THIS ROOM IS DARK GREY LINOLEUM STRIPED DIAGONALLY WITH TAN AND WHITE. THE CEILING AND WALLS ARE OFF-WHITE AND THE BACKGROUND OF THE SHELVES IS COLORED A SOLID SLATE BLUE

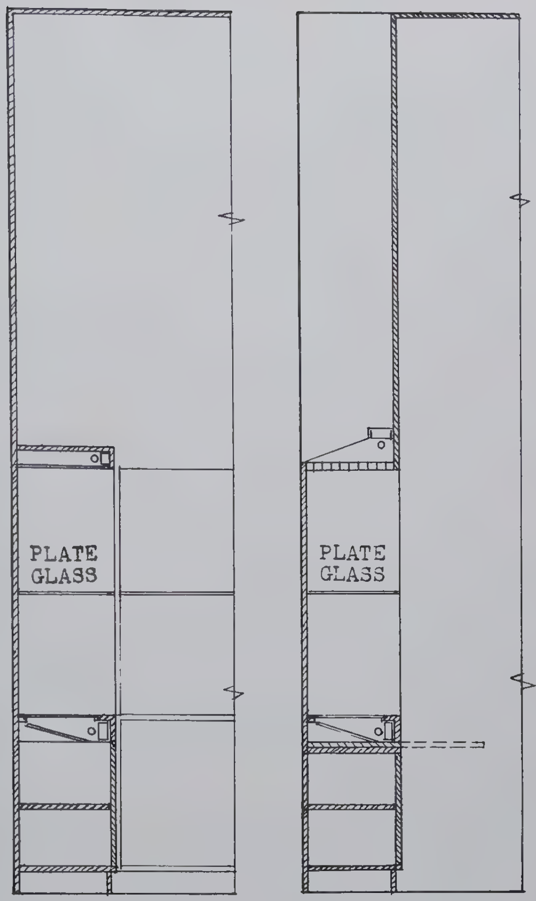




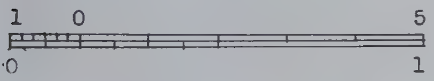
ANOTHER VIEW OF THE CHINAWARE ROOM SHOWS THE CONTRAST OF THE GOLDEN YELLOW DISPLAY CASES LINED WITH WHITE AND THE SOFT-HUED WALLS —TWO OF OFF-WHITE, ONE OF LIGHT GREEN, AND ONE OF GREY. CARPET IS GREY

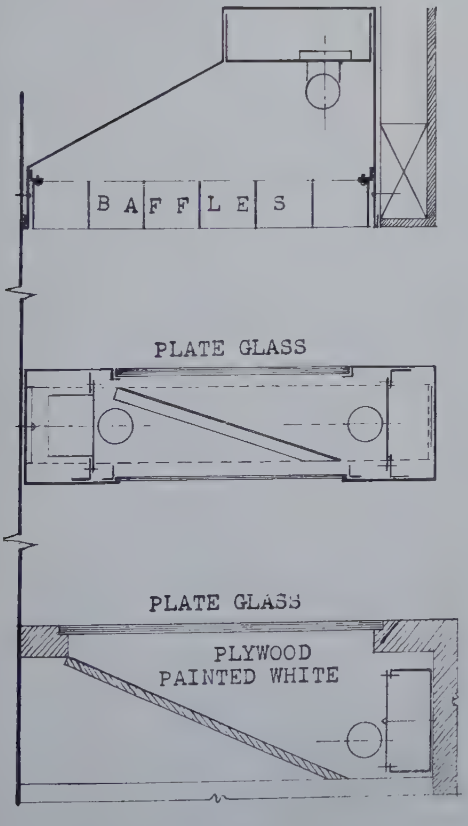


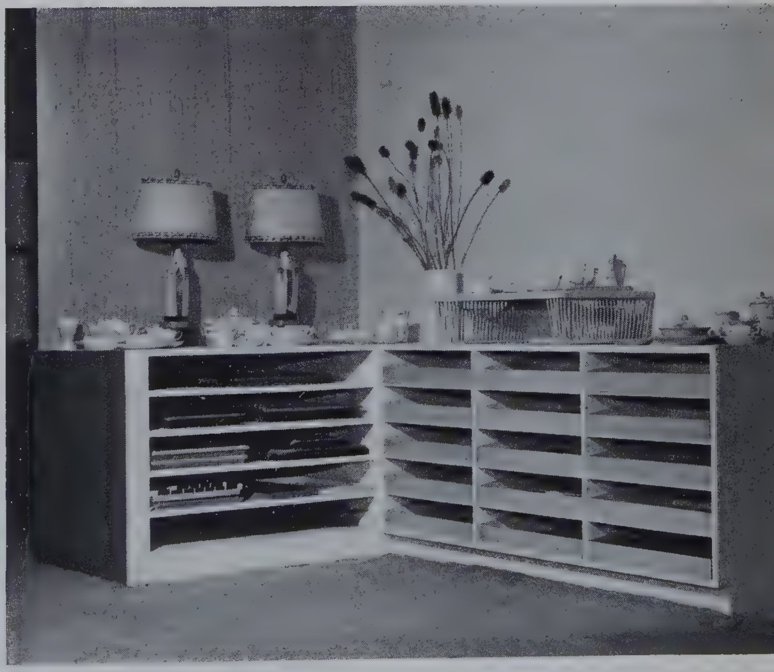
SECTION THROUGH STEMWARE COUNTER



SECTION THROUGH CHINAWARE COUNTER



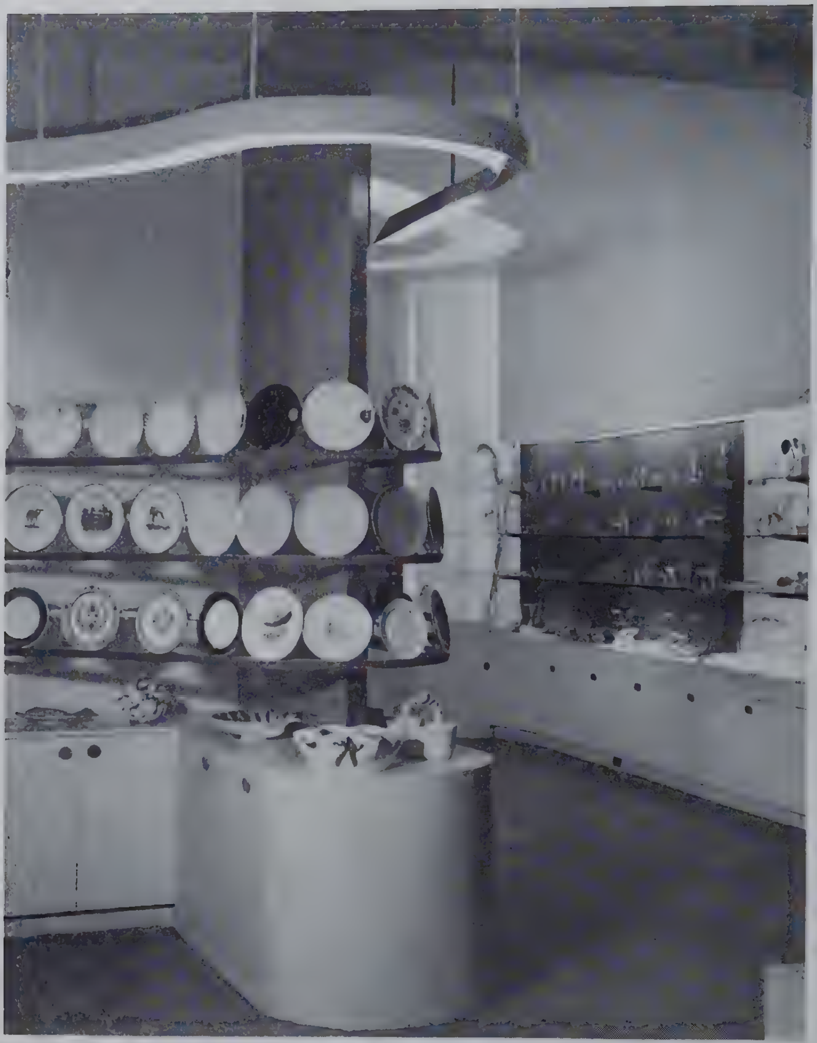


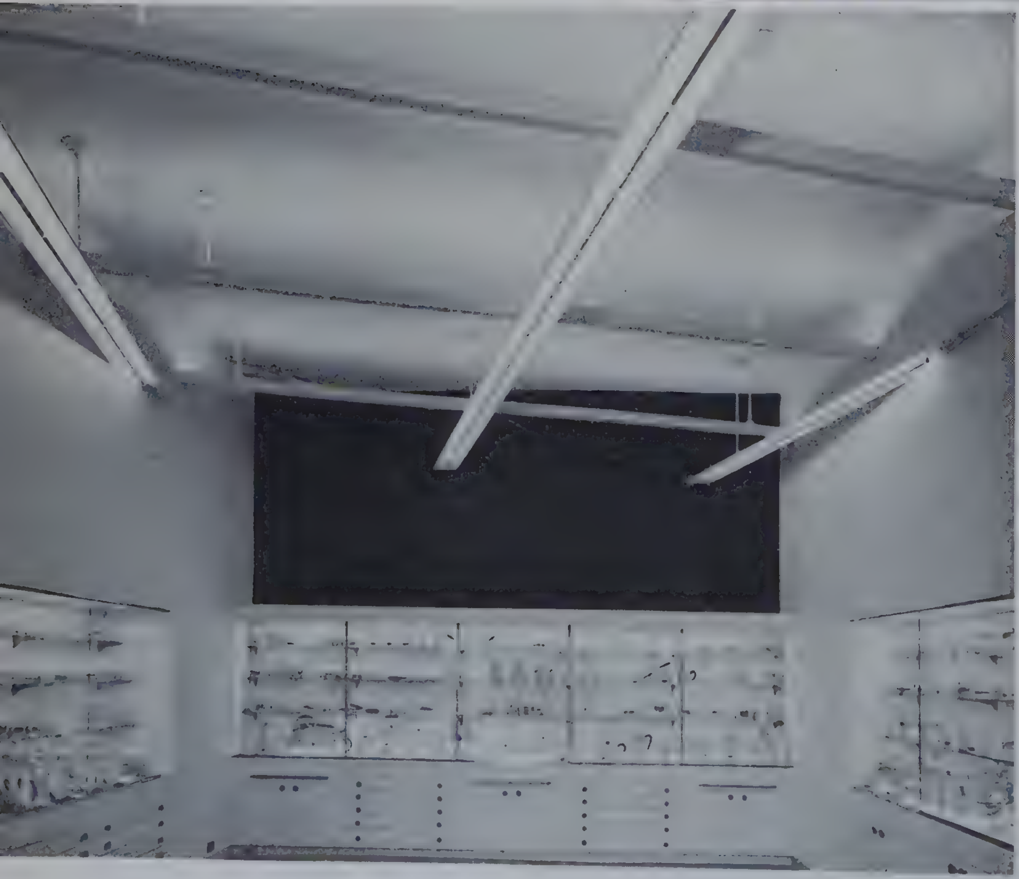


THE TRAY COUNTER AND TABLE LINEN COUNTER (WITH OPEN DRAWERS) ARE PRACTICAL FOR STORAGE AS WELL AS ATTRACTIVE FOR DISPLAY

PITT PETRI SHOP, BUFFALO—BY ANTONIN RAYMOND, ARCHITECT

THIS VIEW IS FROM THE CHINAWARE ROOM TO THE STEMWARE ROOM OF THE PITT PETRI SHOP, BUFFALO





SILVER ROOM — THE BACKGROUND PROVIDED FOR THE DISPLAY OF SILVER INCLUDES DARK GREY CARPET, SNOW WHITE CASES EQUIPPED WITH COOL FLUORESCENT LIGHTS, THREE WALLS OF OFF-WHITE AND END WALL OF DARK BLUE, AND A LIGHT BLUE CEILING

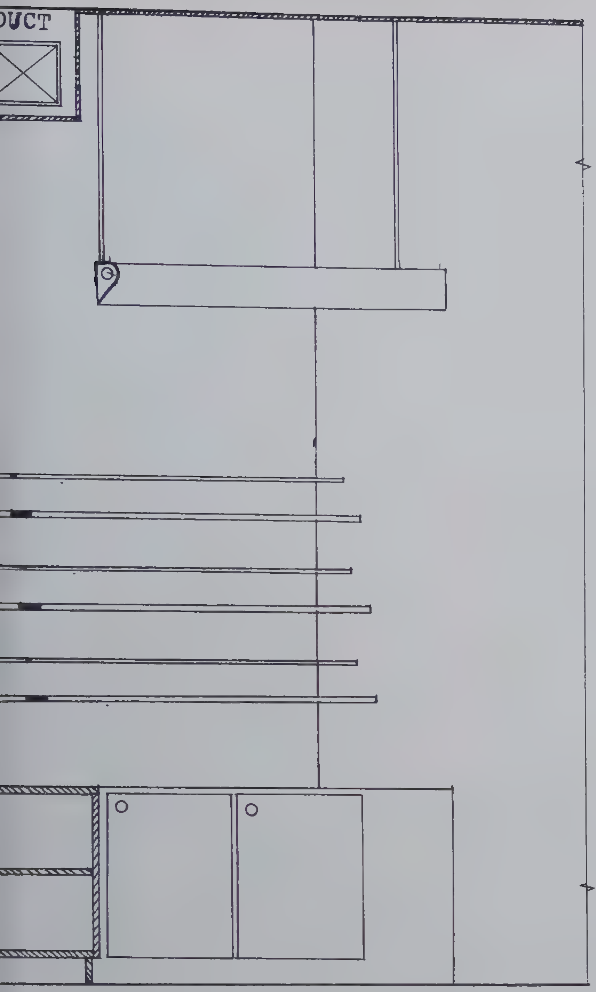
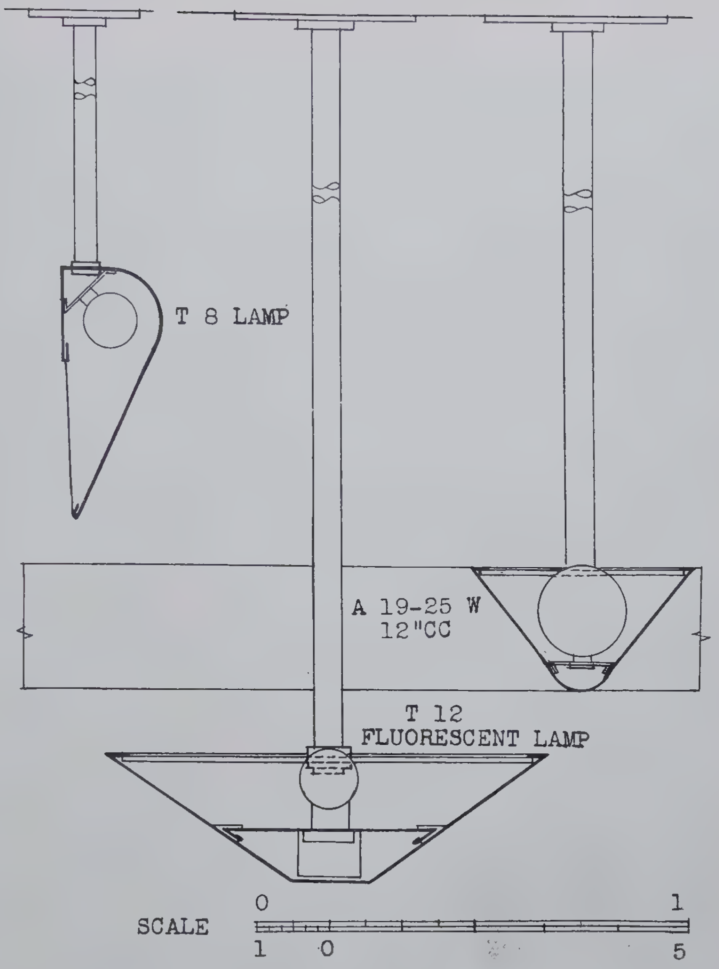
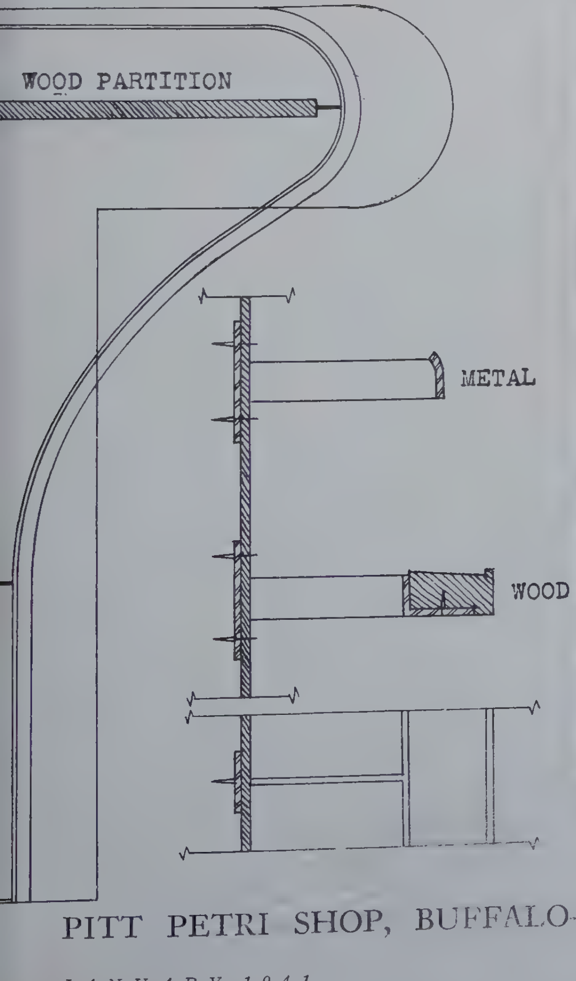
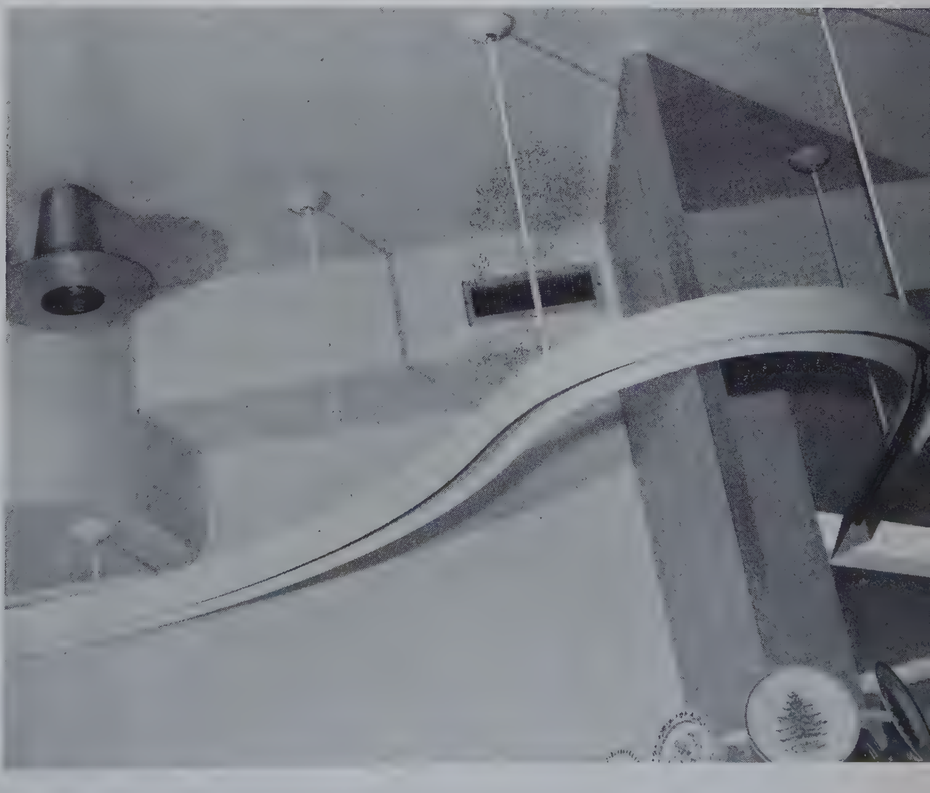


PLATE RACK



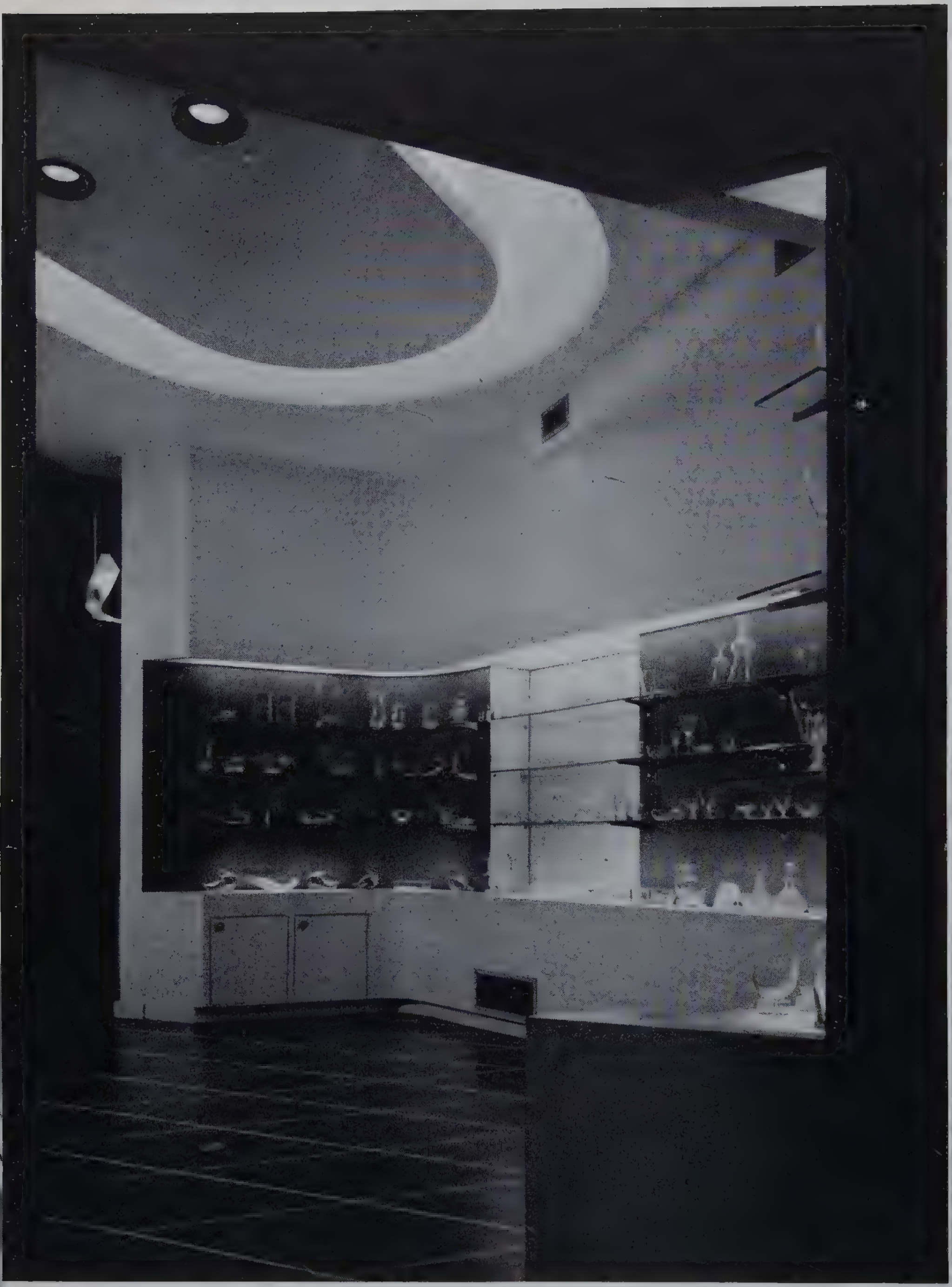
DETAILS OF LIGHTING FIXTURES





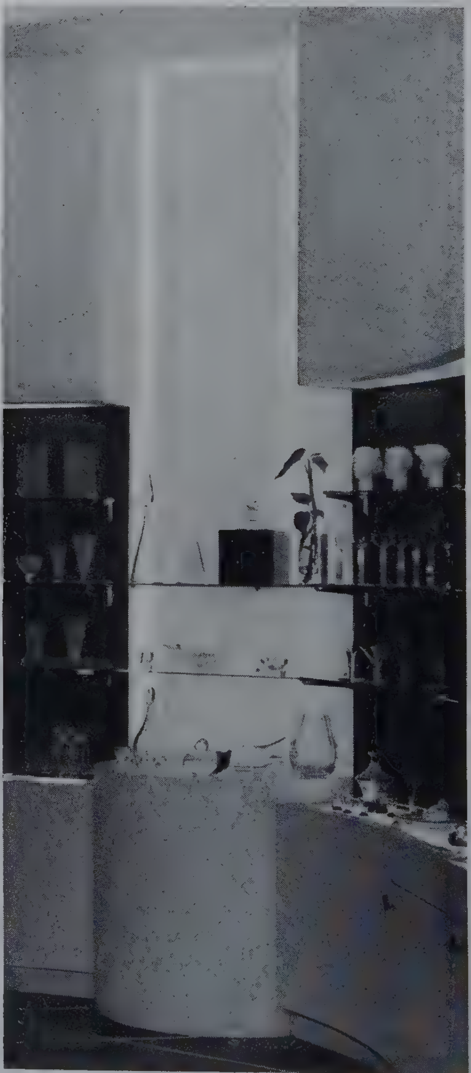
SUSPENDED LIGHT TROUGH OVER FLOATING PLATE RACKS

PITT PETRI SHOP, BUFFALO--BY ANTONIN RAYMOND, ARCHITECT

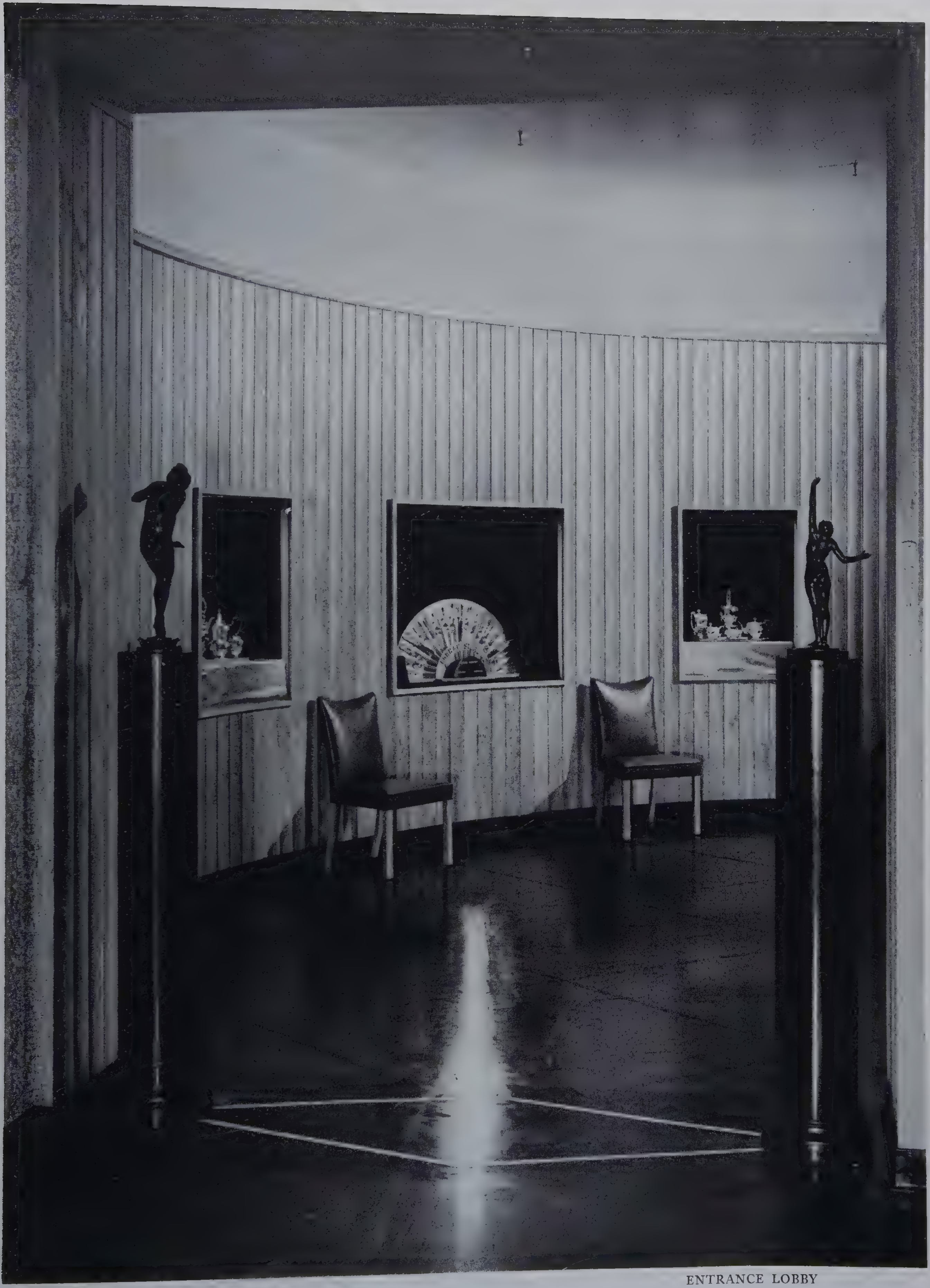


ANOTHER VIEW OF THE STEMWARE ROOM SHOWS THE RELATION OF THE PLAN OF THE SHOP TO THE LIGHTING

DETAIL PHOTO OF THE HALF-ROUND DISPLAY COVE IN STEMWARE ROOM

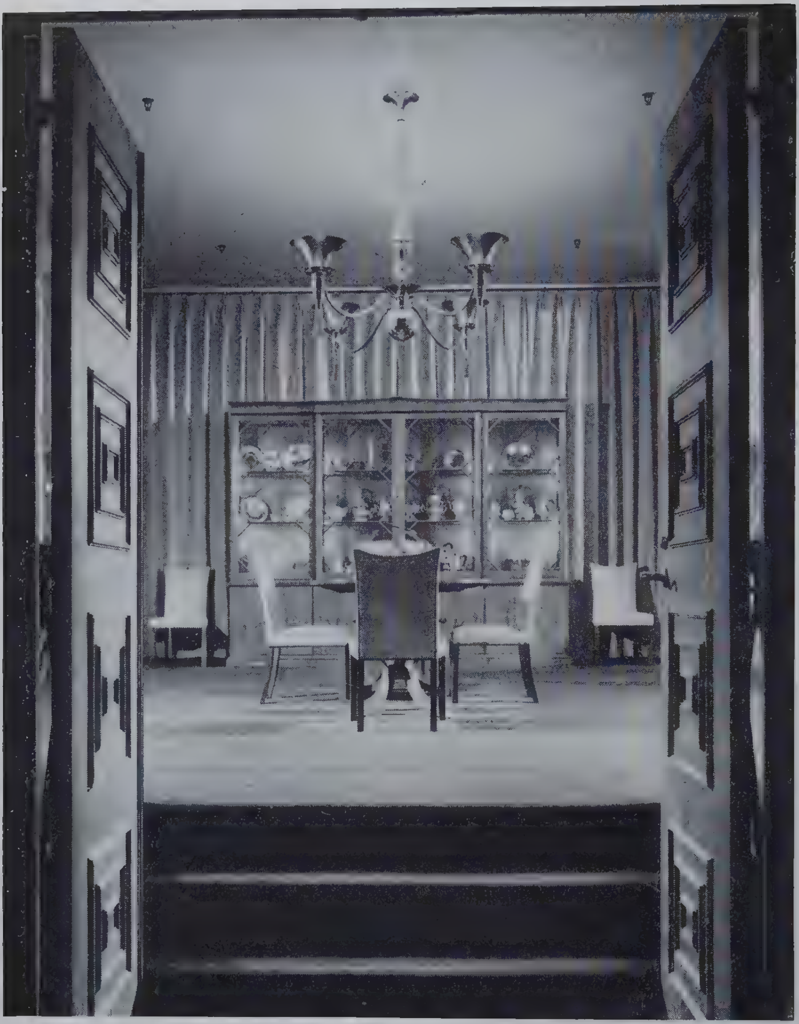


PITT PETRI SHOP, BUFFALO—BY ANTONIN RAYMOND, ARCHITECT

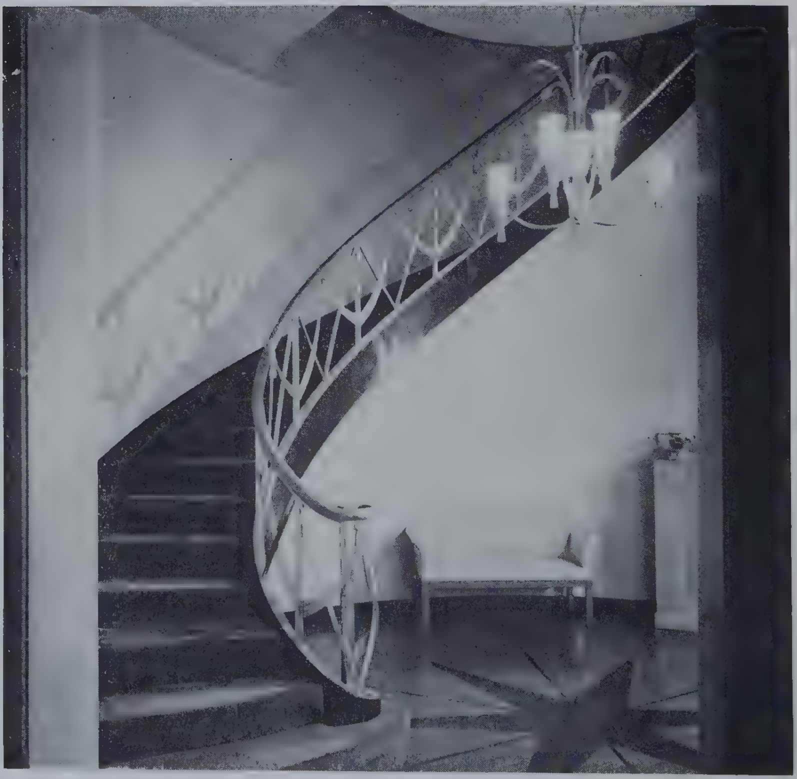


ENTRANCE LOBBY

GORHAM SHOWROOMS, PROVIDENCE, R. I. — BY ALBERT HARKNESS

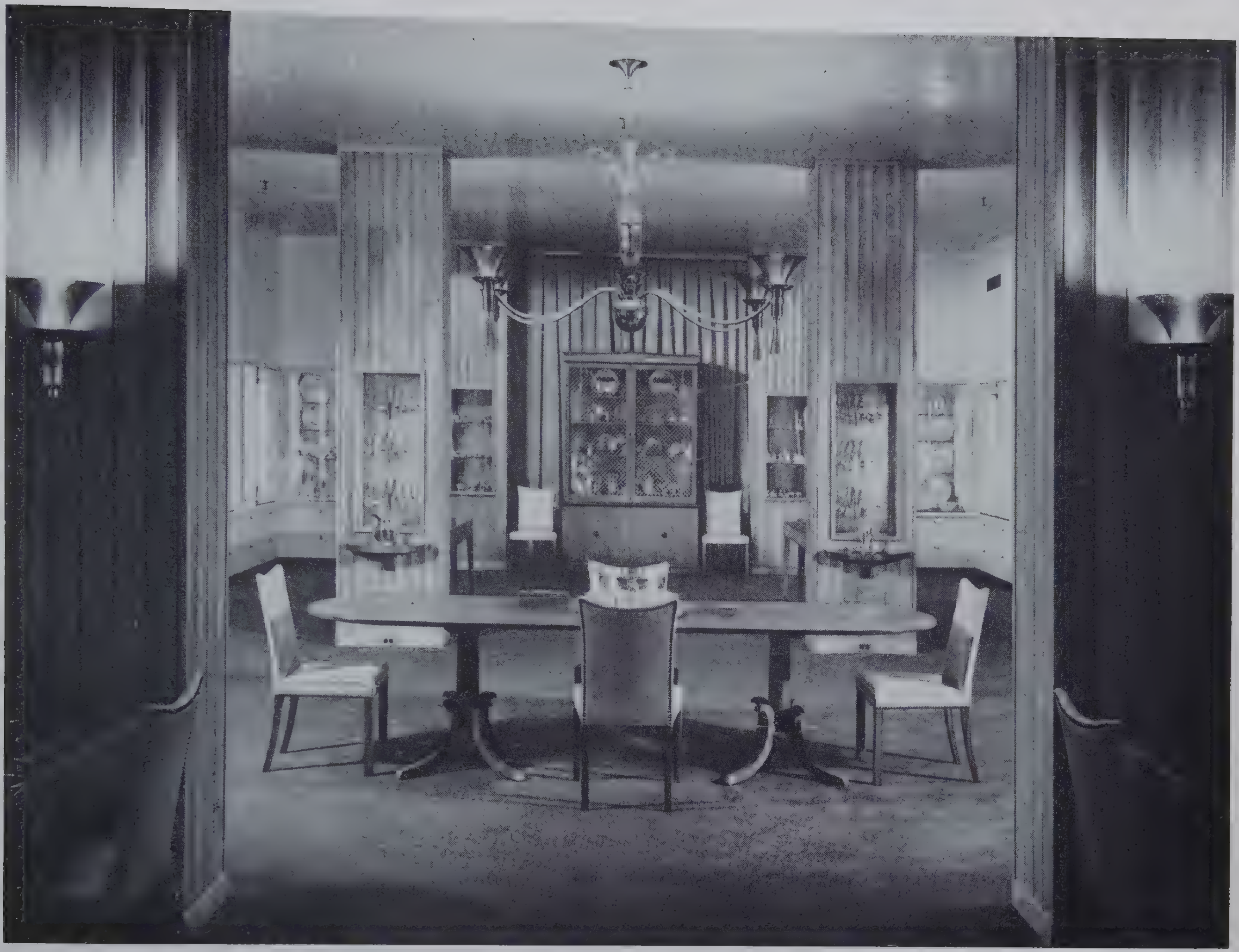


THE SHOWROOMS DESIGNED BY ALBERT HARKNESS, ARCHITECT, FOR THE GORHAM COMPANY IN PROVIDENCE, RHODE ISLAND, ARE APPROACHED THROUGH THE ENTRANCE LOBBY (SEE PAGE 11) AND THE STAIR HALL (BELOW) AS THEY ARE SITUATED ON THE SECOND FLOOR. THE VISTA FROM THE TOP OF THE STAIR INTO THE PRINCIPAL SHOWROOM, WHERE STERLING SILVER IS DISPLAYED, IS PICTURED AT THE LEFT. THE STAIR BELOW, ALSO USED FOR THE EXECUTIVE OFFICES, HAS A SILVERED-BRONZE RAILING WITH GOLD-BRONZE SWAGS AND TASSELS AND A WALNUT HANDRAIL. THE METAL STRING IS FACED WITH EBONIZED FLEXWOOD. THE CEILING OF THE ENTRANCE LOBBY IS BLUE, INDIRECTLY-LIGHTED FROM THE CORNICE. PHOTOS ARE BY RICHARD GARRISON

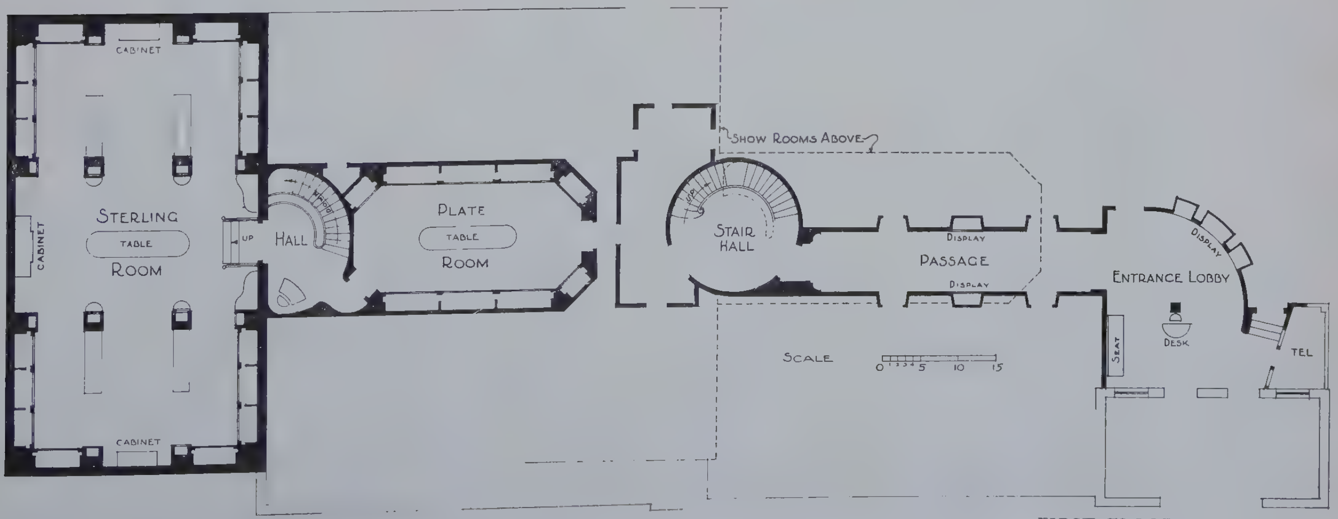


STAIR HALL

NEW SHOWROOMS FOR THE GORHAM COMPANY, PROVIDENCE, R. I.



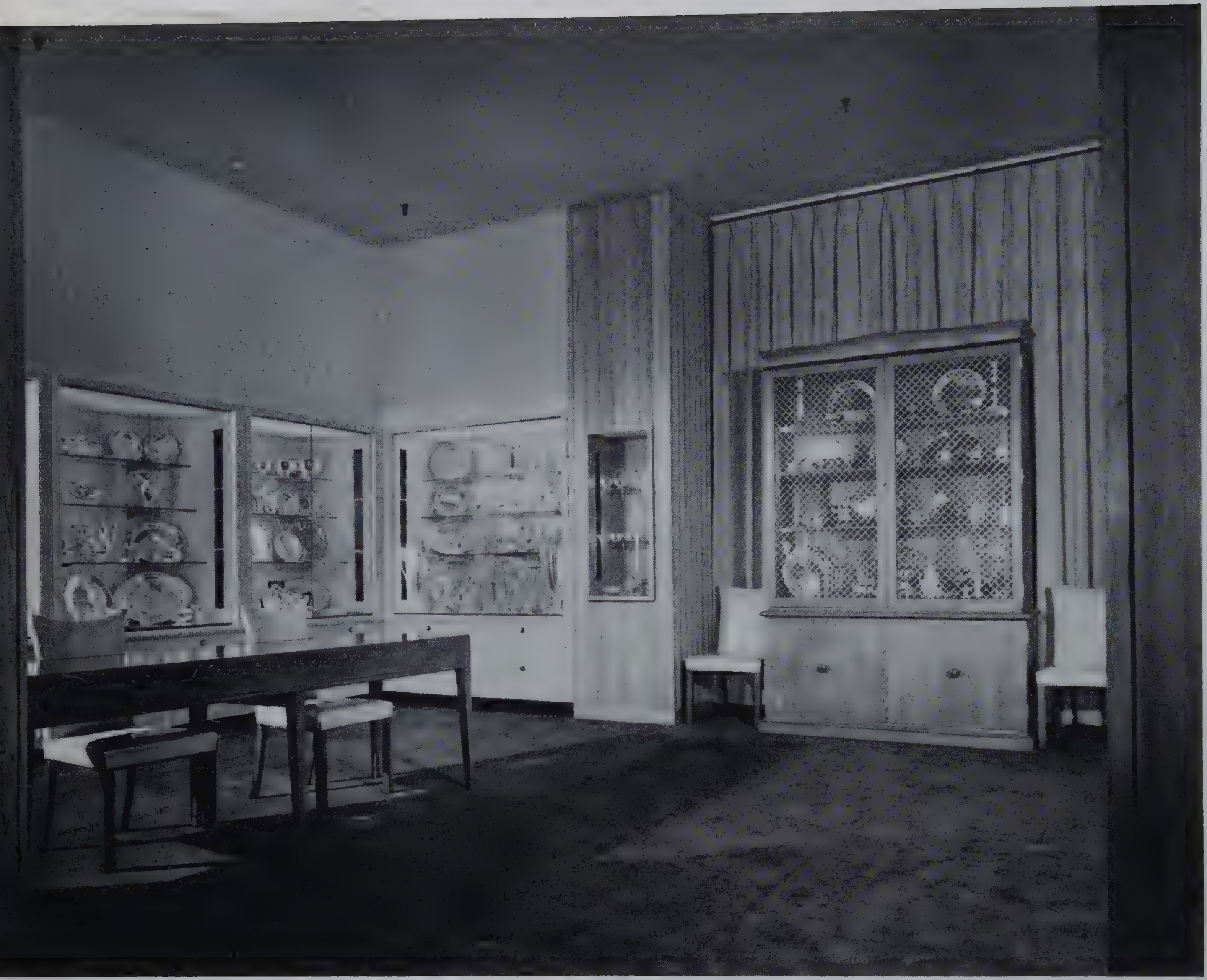
THIS VIEW OF THE STERLING ROOM (SEE PLAN BELOW) IS LENGTHWISE ACROSS TWO OF THE BAYS. THE FURNITURE, OF WALNUT AND OF BUTTERNUT, WAS DESIGNED BY THE ARCHITECT AND ECHOES THE CHARACTER OF THE SHOWROOMS. WOODWORK THROUGHOUT IS BUTTERNUT WITH A CLEAR LACQUER AND WAX FINISH. THE STERLING AND PLATE ROOMS HAVE TAUPE CARPETS AND TAN WALLS AND CEILINGS



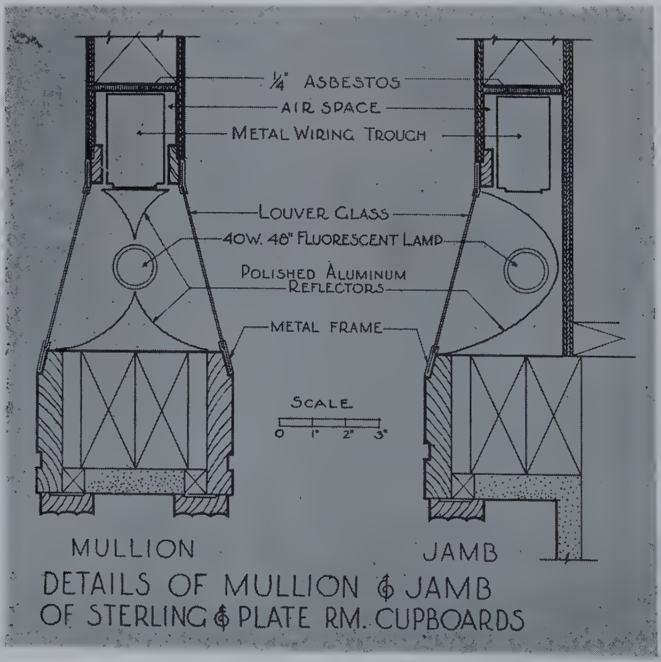
SECOND FLOOR

FIRST FLOOR

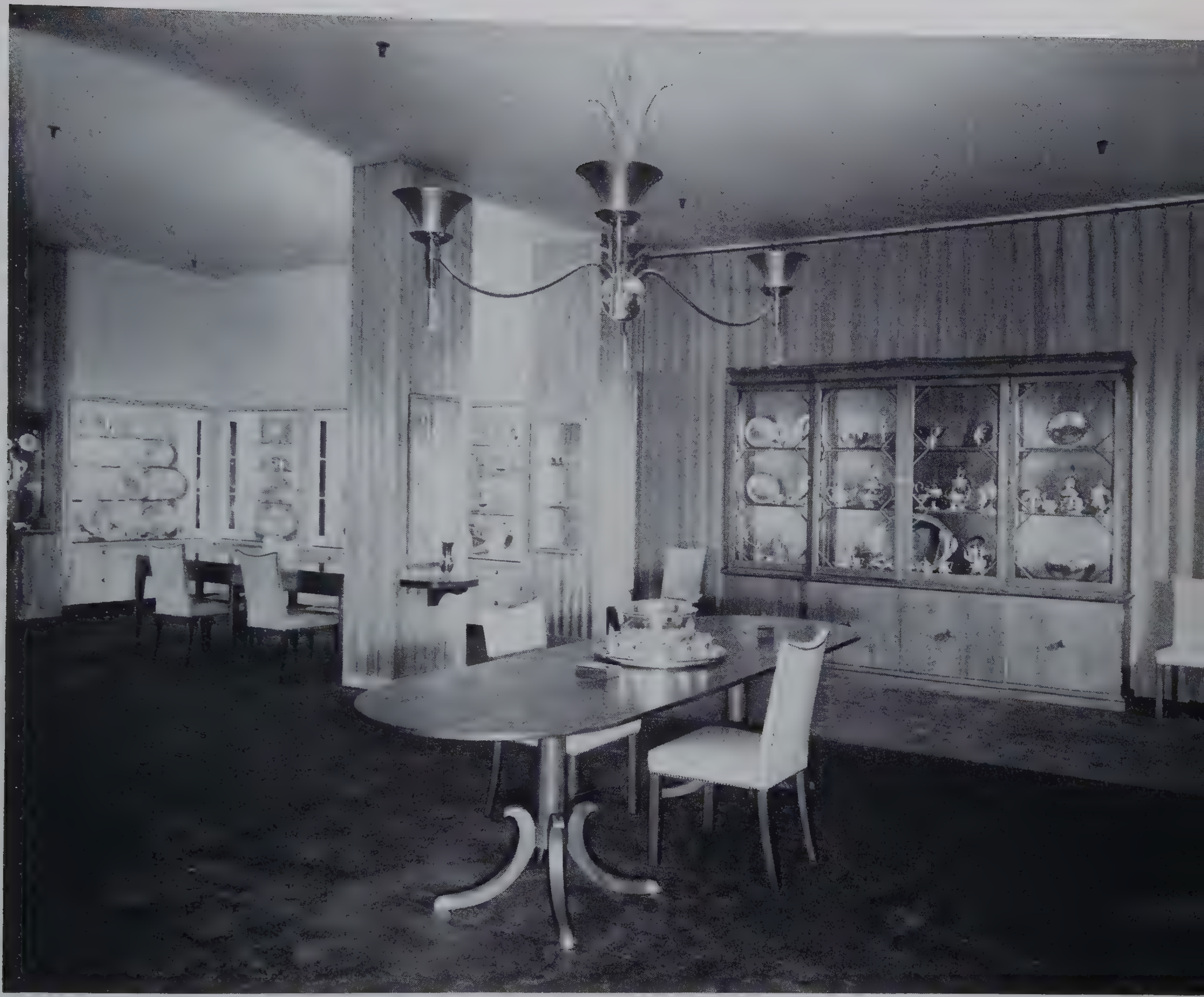
DESIGNED BY ALBERT HARKNESS, ARCHITECT, PROVIDENCE, R. I.



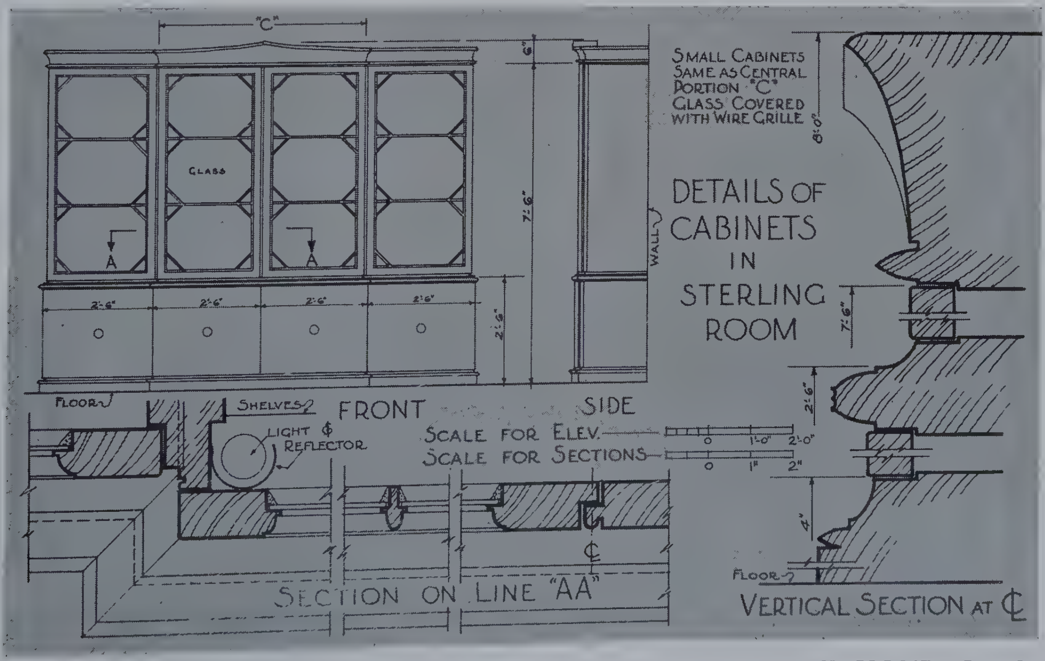
THIS DETAIL PHOTOGRAPH OF THE WALL CUPBOARDS AND A CABINET IN THE GORHAM SHOWROOM FOR STERLING SILVER SHOWS THE EFFECTIVE BACKGROUND PROVIDED BY THE ARCHITECT FOR MERCHANDISING. THE SILVER PIECES ARE DISPLAYED IN RECESSED CUPBOARDS AND ALSO IN DECORATIVE CABINETS. THESE ARE LINED WITH PEACH COLOR TO ENHANCE THE APPEARANCE OF THE MERCHANDISE AND LIGHTED WITH FLUORESCENT LAMPS SHIELDED BY LOUVERGLAS. IT SHOULD BE NOTED THAT THE CASES IN THE COLUMNS AND PILASTERS ARE BLUE-GREEN


¼" ASBESTOS
AIR SPACE
METAL WIRING TROUGH
LOUVER GLASS
40W. 48" FLUORESCENT LAMP
POLISHED ALUMINUM REFLECTORS
METAL FRAME
SCALE
0 1" 2" 3"
MULLION
JAMB
DETAILS OF MULLION & JAMB
OF STERLING & PLATE RM. CUPBOARDS

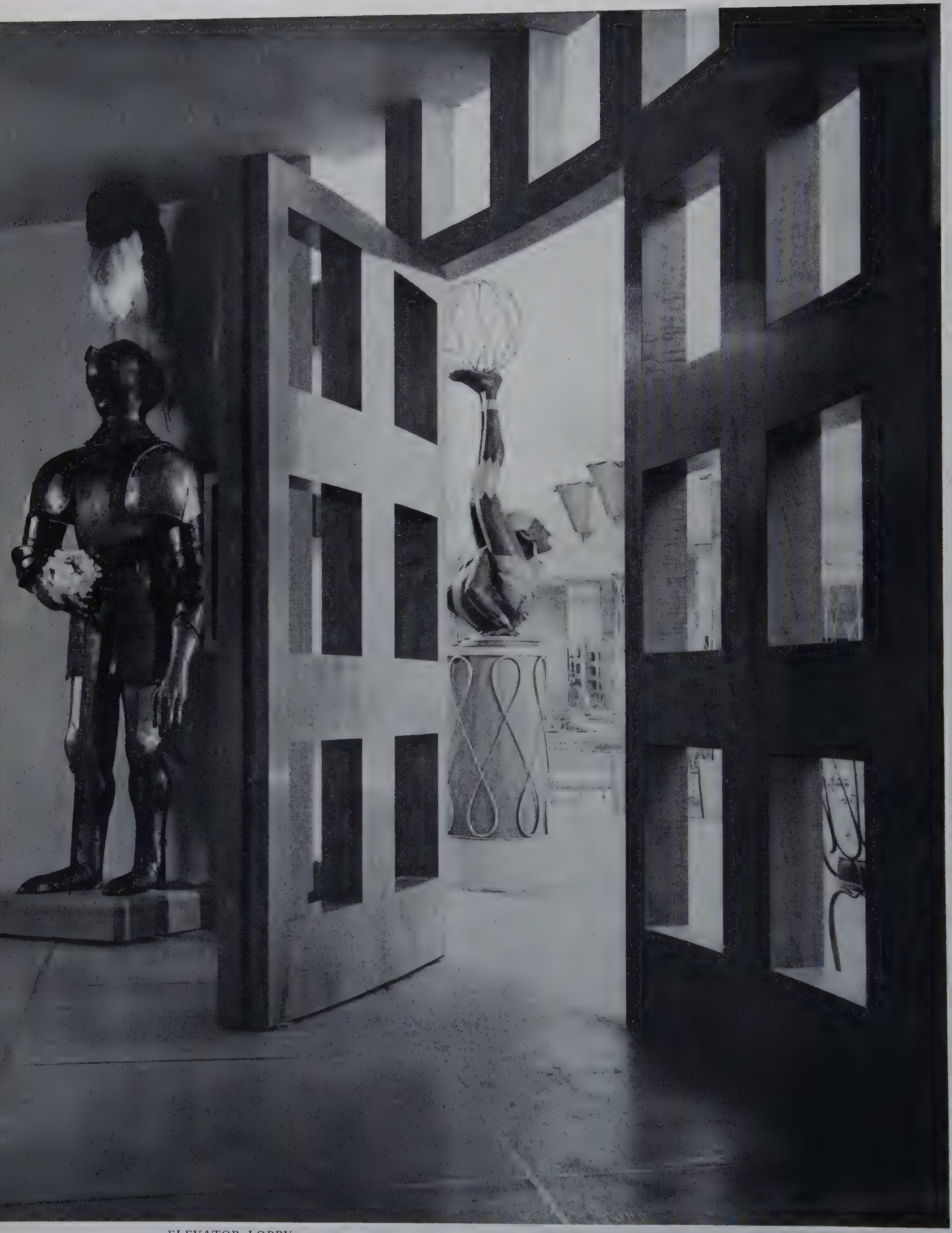
NEW SHOWROOMS FOR THE GORHAM COMPANY, PROVIDENCE, R. I.



PHOTOGRAPH AND DETAIL DRAWING OF THE DISPLAY CABINET IN THE STERLING ROOM

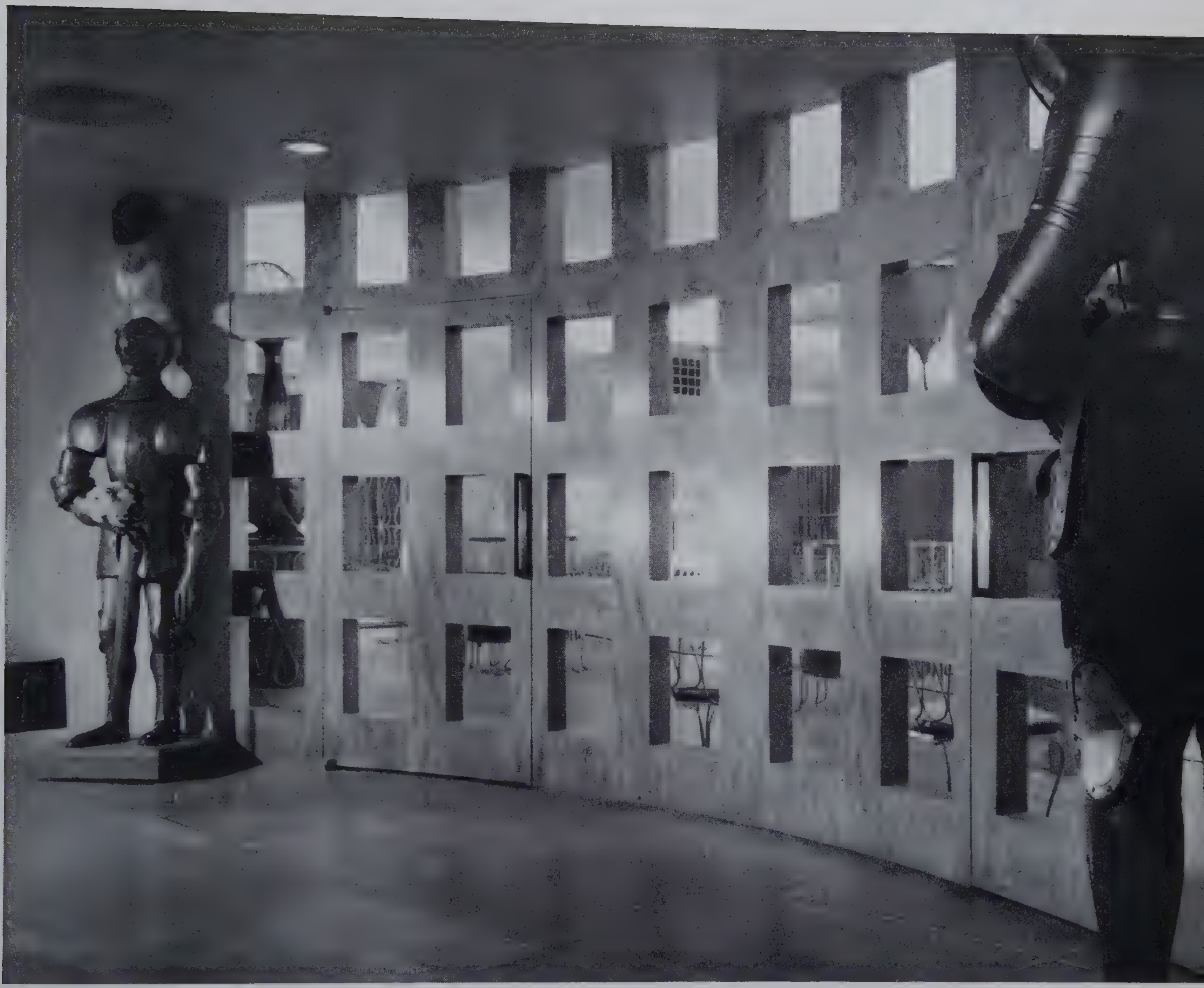


DESIGNED BY ALBERT HARKNESS, ARCHITECT, PROVIDENCE, R. I.

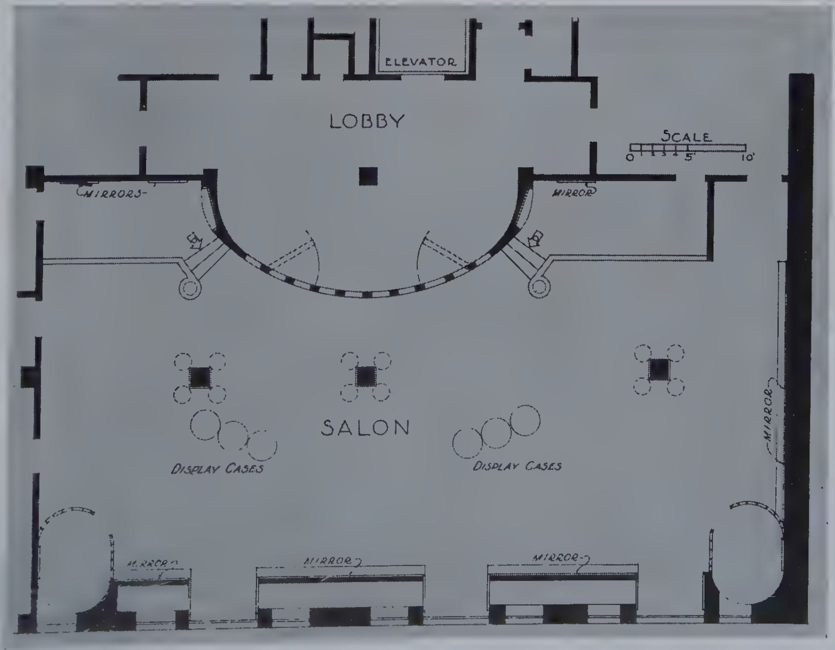


ELEVATOR LOBBY

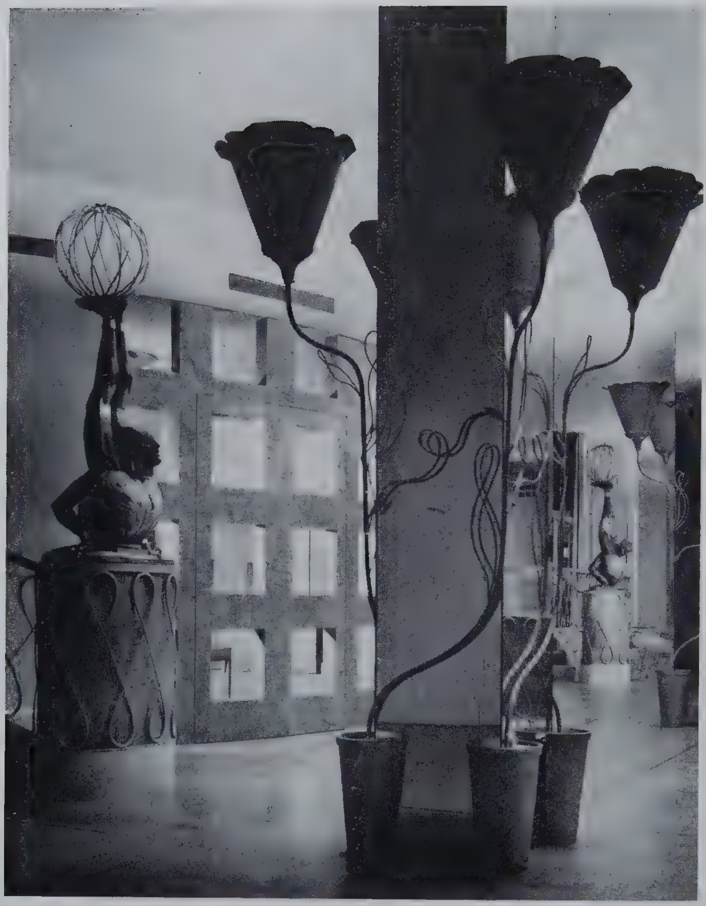
SHOP FOR JOHN-FREDERICS—BY RENE C. BRUGNONI, ARCHITECT,



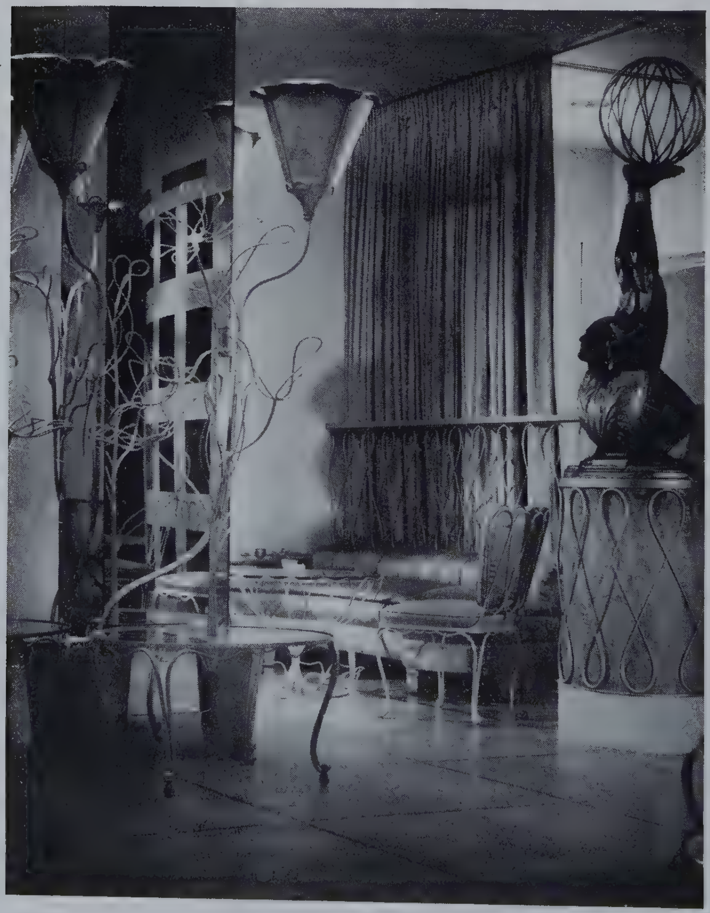
THE NEW YORK SHOP DESIGNED FOR DISPLAY OF JOHN-FREDERICS EXCLUSIVE MILLINERY AND COSTUME ACCESSORIES IS APPROACHED THROUGH THE ELEVATOR LOBBY SHOWN HERE AND ACROSS-PAGE. THE PRINCIPAL DECORATION IS AN ARCHITECTURAL FEATURE — THE GRAY HAREWOOD GRILLE AND DOORS, CONTRASTING DRAMATICALLY WITH THE FANCIFUL TREATMENT OF THE SALES SALON. THE FLOORS OF BOTH ROOMS ARE OF GRAYED OAK, PATTERNED WITH ONE-INCH BRONZE STRIPS. PHOTOS ARE BY RICHARD GARRISON



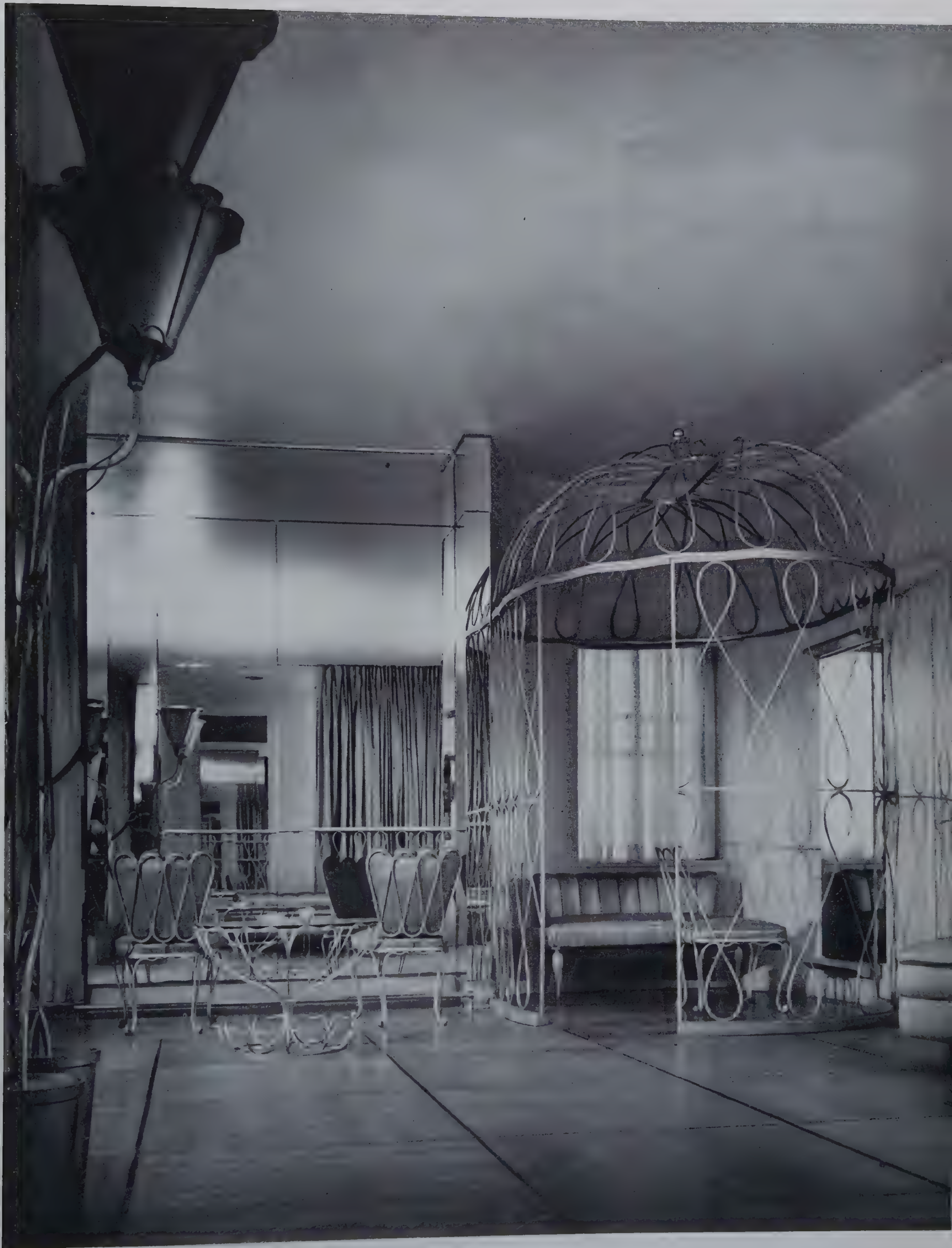
AND T. H. ROBSJOHN-GIBBINGS, INTERIOR DESIGNER, NEW YORK



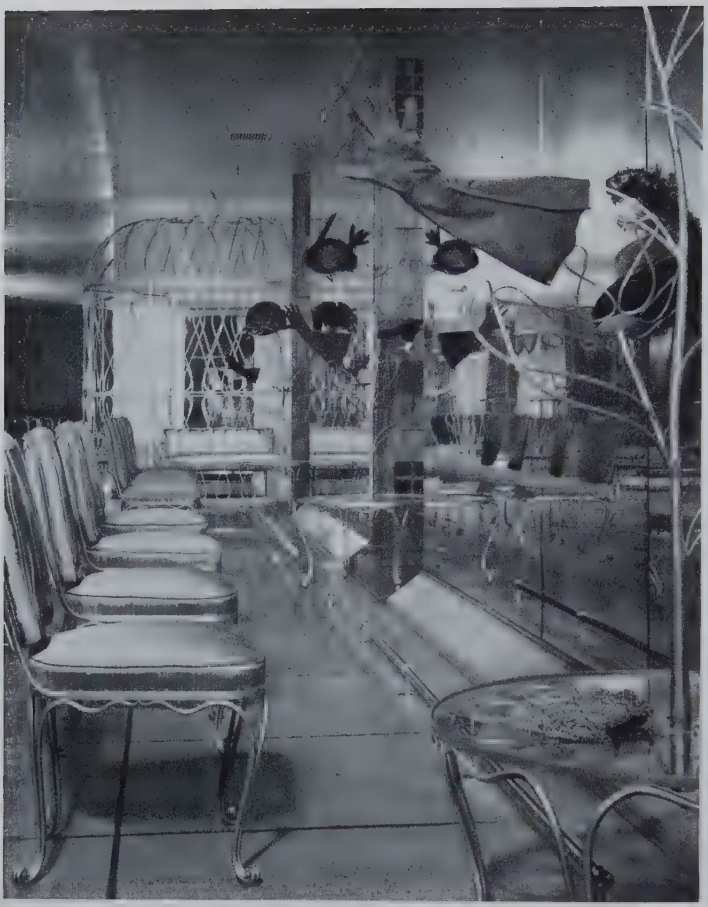
VIEWED FROM THE JOHN-FREDERICS SALES SALON, THE HAREWOOD GRILLE AT THE ENTRANCE IS FLANKED BY A DECORATIVE NEWEL TREATMENT ON THE STEPS LEADING TO OFFICES AT EITHER SIDE (DETAIL PHOTO LEFT). THE THREE MIRROR COLUMNS WITH THEIR FANTASTIC LIGHTS SUGGESTING FLORAL FORMS ARE PARTICULARLY APPROPRIATE IN THIS ROOM WITH MIRROR WALLS. THE PHOTOGRAPH ACROSS-PAGE SHOWS (ON THE RIGHT) ONE OF THE AMUSING "GILDED CAGES" PROVIDED FOR FAVORED SHOPPERS TO TRY ON HATS. AT THE SAME TIME, OTHERS PATRONIZING THE SHOP MAY GRATIFY THEIR CURIOSITY ABOUT THE PERSONAL IMPACT OF A NEW JOHN-FREDERICS CREATION BY SITTING BEFORE THE MIRRORED WALLS AT THE FRONT OF THE SALON (LEFT OF PHOTOGRAPH ACROSS-PAGE)



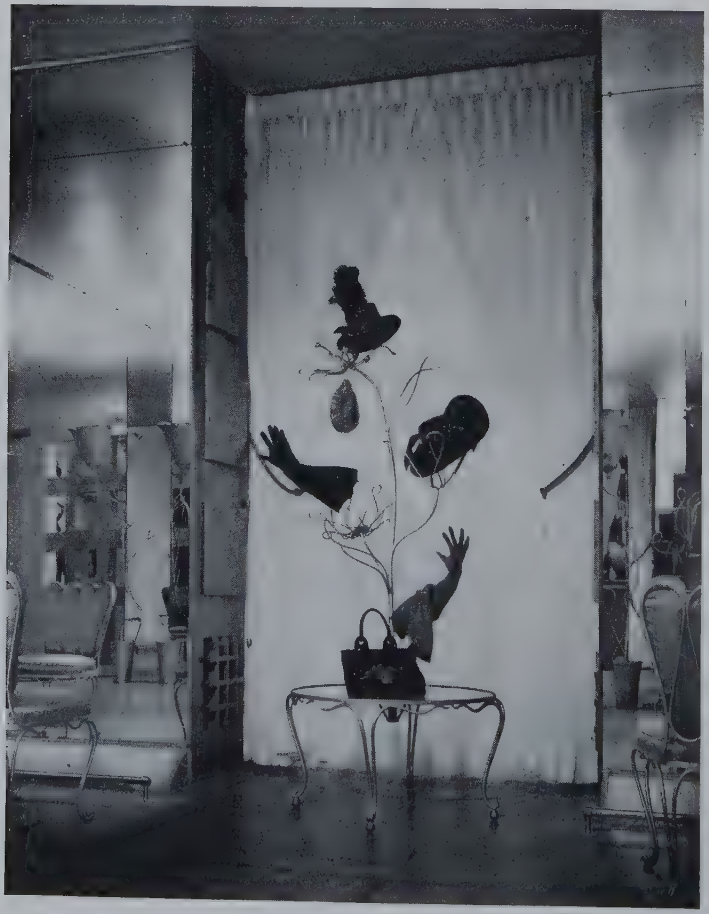
SHOP FOR JOHN-FREDERICS—BY RENE C. BRUGNONI, ARCHITECT,



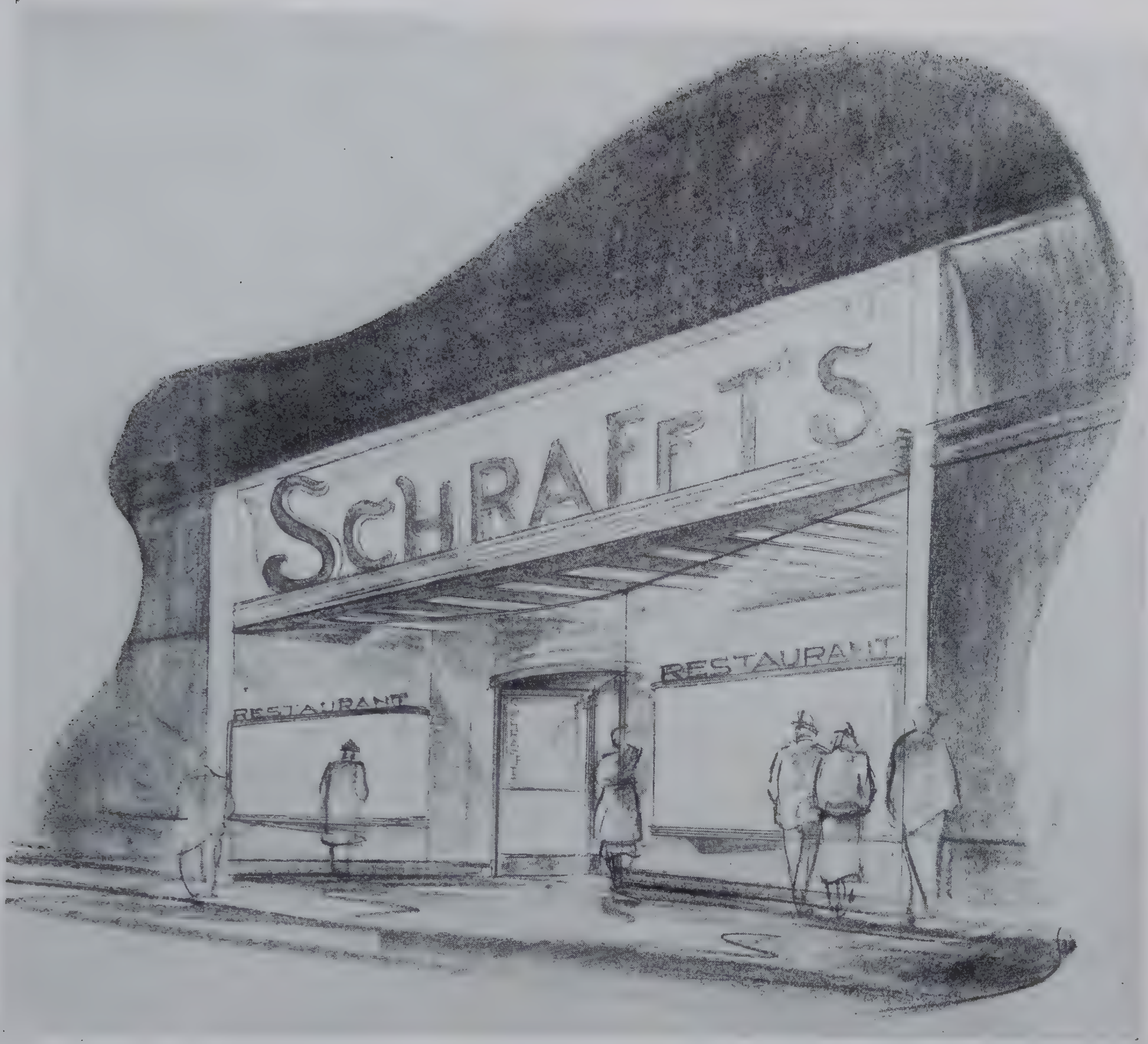
AND T. H. ROBSJOHN-GIBBINGS, INTERIOR DESIGNER, NEW YORK



ANOTHER VIEW ALONG THE FRONT WALL OF THE SALON SHOWS THE MIRRORS BETWEEN THE RECESSED WINDOWS (NOTE DETAIL PHOTOS). THE METAL FURNITURE WITH BRONZE SPRAYED FINISH WAS DESIGNED BY ROBSJOHN-GIBBINGS WHO COLLABORATED WITH BRUGNONI ON ALL OF THE DECORATIONS OF THE SHOP. ALTHOUGH THE FORMS USED ARE FANCIFUL AND INTENDED TO AMUSE THOSE VISITING THE SHOP, IT SHOULD BE NOTED THAT THE COLOR SCHEME IS CLEVERLY KEYED VERY LOW SO THAT THERE WILL BE NO COMPETITION WITH MERCHANDISE SHOWN



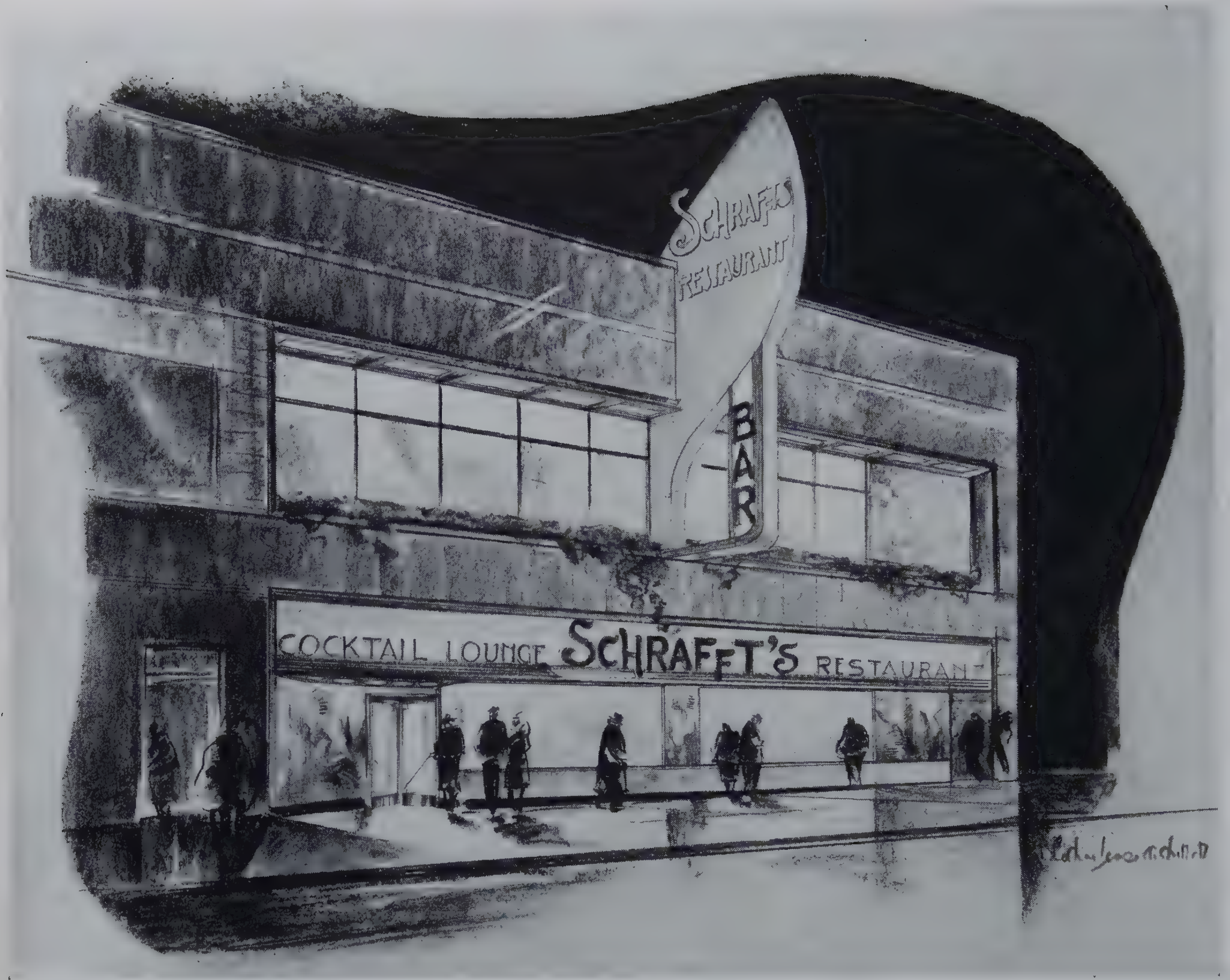
SHOP FOR JOHN-FREDERICS—BY RENE C. BRUGNONI, ARCHITECT



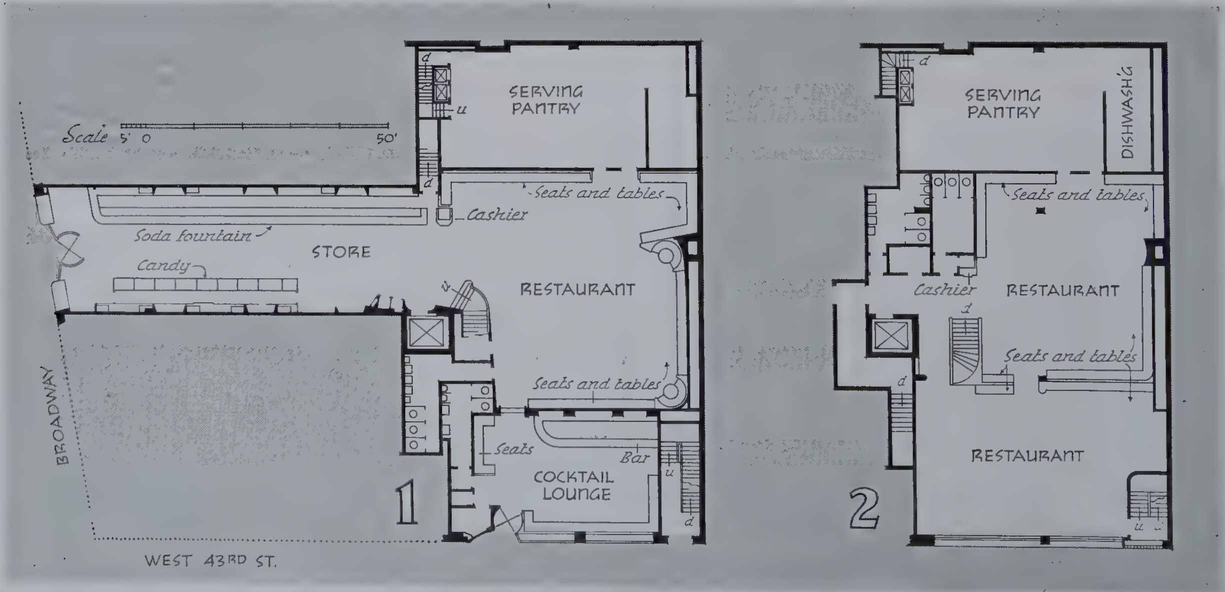
TIMES SQUARE FAÇADE OF SCHRAFFT'S RESTAURANT NEARING COMPLETION AT 43RD STREET, NEW YORK

AS ARCHITECTS FOR THE SCHRAFFT'S STORES, THE FIRM OF BLOCH & HESSE, OF NEW YORK, HAS BEEN ENGAGED FOR THE PAST SIX MONTHS IN A PROGRAM OF REMODELING AND RENOVATION AFFECTING STORES AND RESTAURANTS OF THE CONCERN IN MANHATTAN AND OTHER EASTERN CITIES. THE PROBLEM HAS BEEN TO GIVE THE EXTERIOR AND INTERIOR TREATMENT OF THESE ESTABLISHMENTS FRESH INTEREST—INTRODUCING THE MOST MODERN FEATURES AND RADICALLY CHANGING THE DESIGNS IN SOME CASES—WITHOUT DEPARTING FROM THE ARCHITECTURAL CHARACTER THAT HAS TYPIFIED THE SCHRAFFT'S STORES. AT THE SAME TIME, THE OPERATORS OF SCHRAFFT'S STORES AND RESTAURANTS ALSO DECIDED TO OPEN A LARGE NEW RESTAURANT, SO A SITE ON TIMES SQUARE AT 43RD STREET WAS SELECTED AND THE ARCHITECTS WERE COMMISSIONED TO DESIGN THE STORE WITH FRONTAGE ON BOTH STREETS (SEE PLAN, OVER-PAGE). IN THIS PROJECT THE ESSENTIAL CHARACTER OF THE SCHRAFFT'S STORES WAS TO BE RECALLED BUT THE PRIMARY DESIGN CONSIDERATION WAS TO CREATE A FAÇADE THAT WOULD NOT BE OVERPOWERED OR OBSCURED BY THE TOP-PRICED BLATANCY OF THE TIMES SQUARE ADVERTISING CIRCUS. THE ARCHITECTS CHOSE TO INSTALL A FRONT OF GLASS, HERCULITE AND BRONZE—MADE MORE DRAMATIC BY A SOFFIT OF VERMILION-STAINED METAL, STRIPED WITH FLUORESCENT LIGHTS

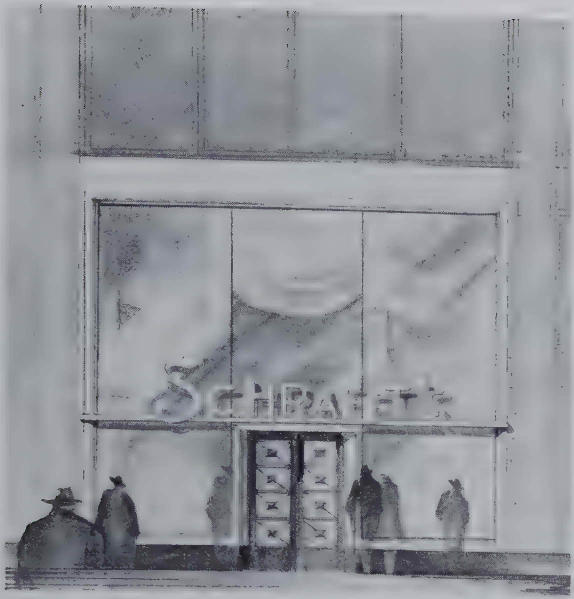
SCHRAFFT'S STORES — BLOCH & HESSE, ARCHITECTS, NEW YORK

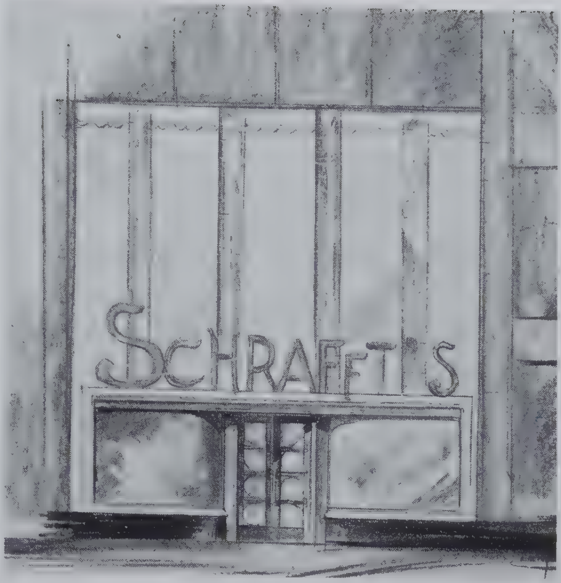


THE 43RD STREET FAÇADE OF THE NEW SCHRAFFT'S RESTAURANT AND STORE AT TIMES SQUARE IS SHOWN IN THIS PRELIMINARY PENCIL-AND-WASH SKETCH MADE IN THE OFFICE OF BLOCH & HESSE, THE ARCHITECTS. THE ENTRANCES ON THIS SIDE WILL BE USED BY PATRONS OF THE RESTAURANT AND COCKTAIL LOUNGE AND ALSO THE DINING ROOMS ON THE SECOND FLOOR (SEE PLAN BELOW) WHILE THE ENTRANCE ON TIMES SQUARE WILL SERVE PATRONS OF THE CANDY STORE AS WELL AS THE RESTAURANT ON THE MAIN FLOOR. MOST OF THE SKETCHES AND STUDIES SHOWN HERE ARE BY JAMES ATKINS, DELINEATOR

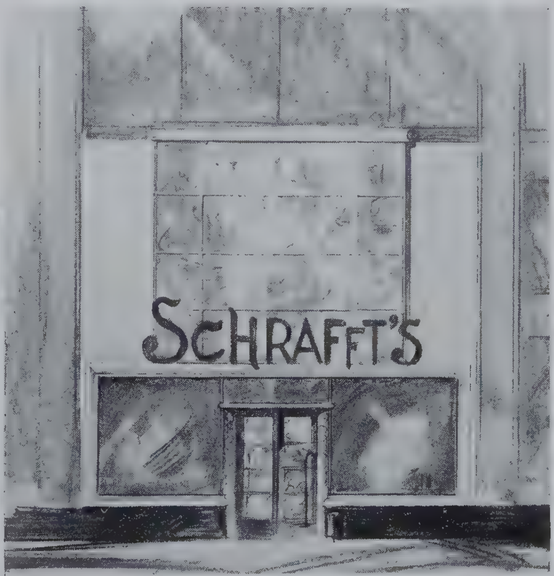


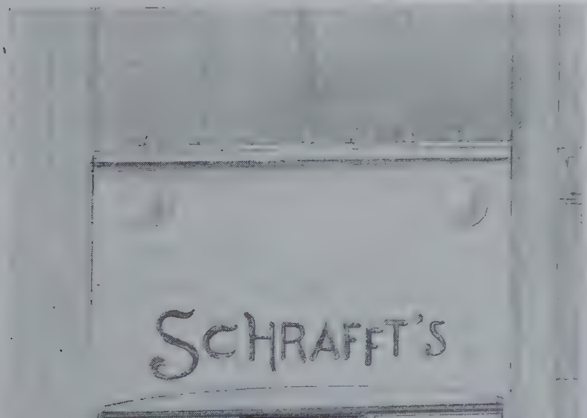
SCHRAFFT'S STORES — BLOCH & HESSE, ARCHITECTS, NEW YORK

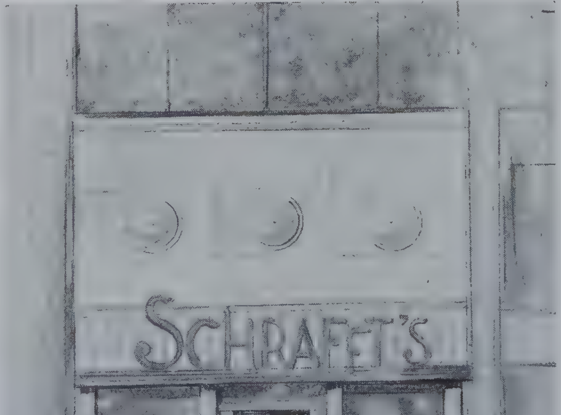




MODERNIZATION OF THE FAÇADE OF ONE OF SCHRAFFT'S STORES, 386 FULTON STREET, BROOKLYN, WAS STUDIED AS INDICATED BY FIVE SKETCHES ON THIS PAGE WHEN REMOVAL OF THE "EL" IN FRONT OF THE STORE WAS PROPOSED. THE FREEDOM ENJOYED BY THE ARCHITECTS, ALSO THE INVENTIVENESS DISPLAYED IN DESIGNING FOR A CONCERN WHICH HAS ESTABLISHED ARCHITECTURAL PREFERENCES, MAY BE OBSERVED IN THESE SKETCHES. AFTER THE ARCHITECTS HAVE ARRIVED AT A DESIGN THAT PLEASES THE CLIENT, AND MATERIALS HAVE BEEN SELECTED, THE COORDINATION OF DRAFTING ROOM ACTIVITIES AND CONSTRUCTION WORK IS DIRECTED BY PIERO GHIANI WHO HAS BEEN ASSOCIATED WITH BLOCH & HESSE FOR A PERIOD OF YEARS. GEORGE C. HANNON, CHIEF ENGINEER OF THE FRANK G. SHATTUCK COMPANY, WAS CONSULTANT







SCHRAFFT'S STORES — BLOCH & HESSE, ARCHITECTS, NEW YORK

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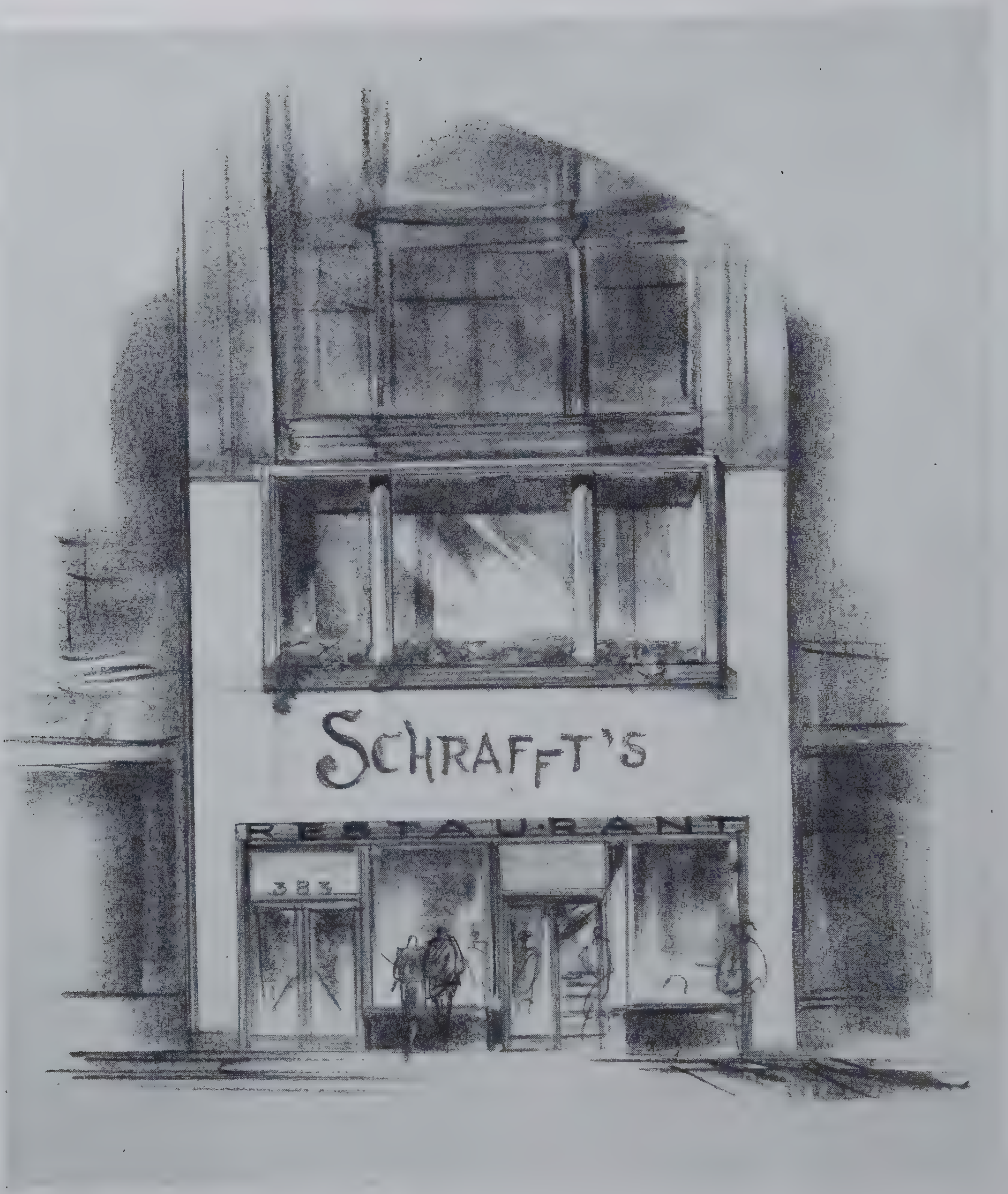
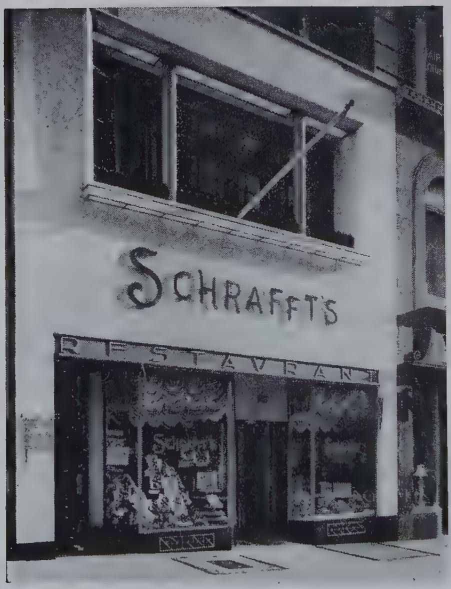
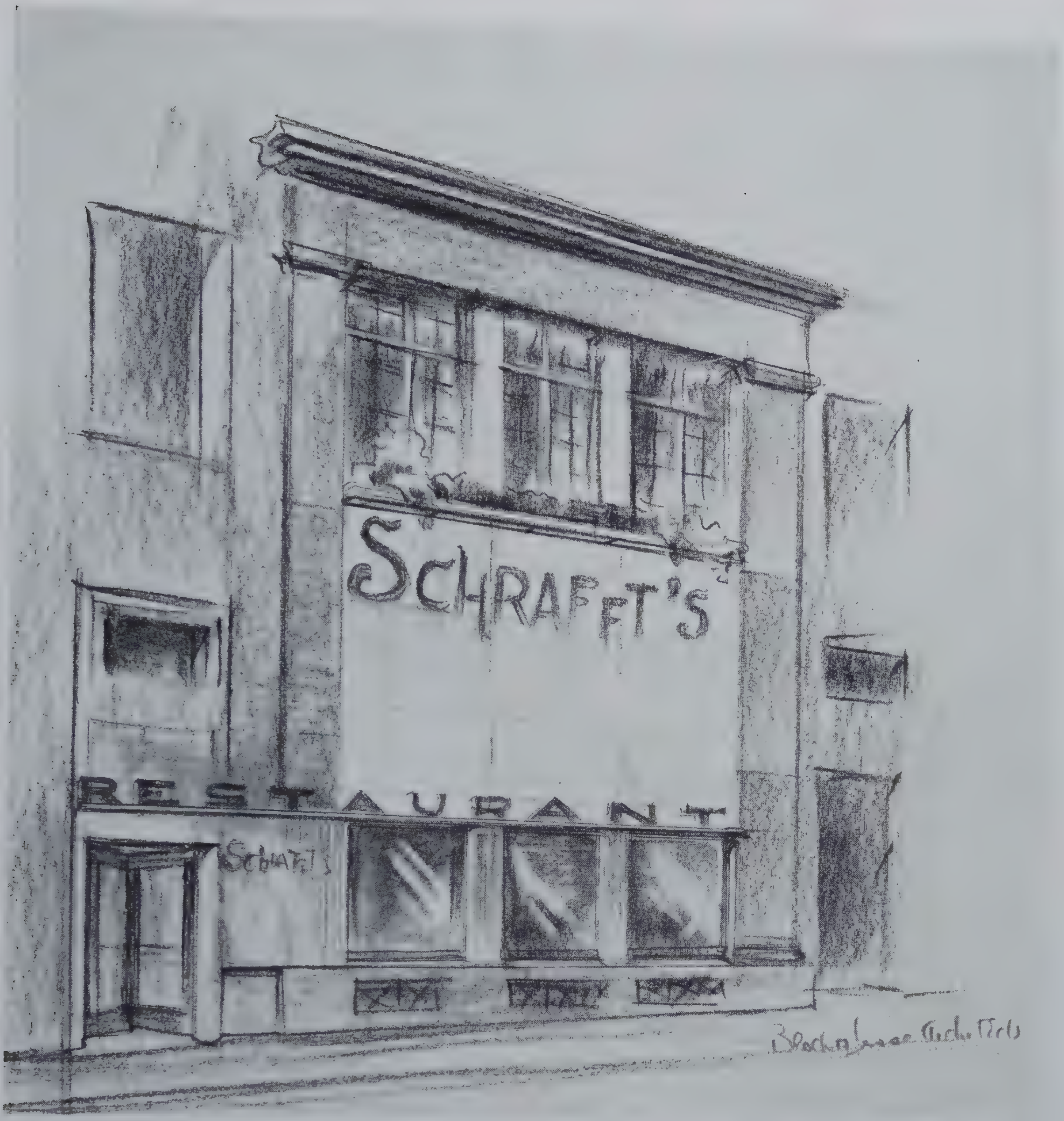


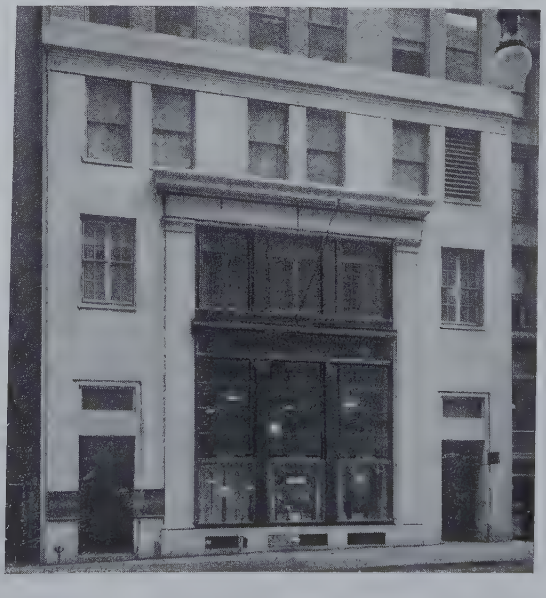


THE NEW FRONT OF THE SCHRAFFT'S RESTAURANT AND STORE AT 383 FIFTH AVENUE IS SHOWN HERE IN THE ARCHITECTS' PRELIMINARY SKETCH (ABOVE) AND IN A PHOTOGRAPH OF THE COMPLETED JOB BY SAMUEL H. GOTTSCHO, WHO MADE ALL OF THE PHOTOGRAPHS OF THE REMODELED SCHRAFFT'S FRONTS IN THIS SECTION. THE FAÇADE AT 383 FIFTH AVENUE IS OF WHITE MARBLE WITH A BRONZE AND GLASS FRONT AT THE STREET LEVEL, AND COLUMNS AND FASCIA OF JADE GREEN PORCELAIN ENAMEL WERE USED ON THE SECOND FLOOR

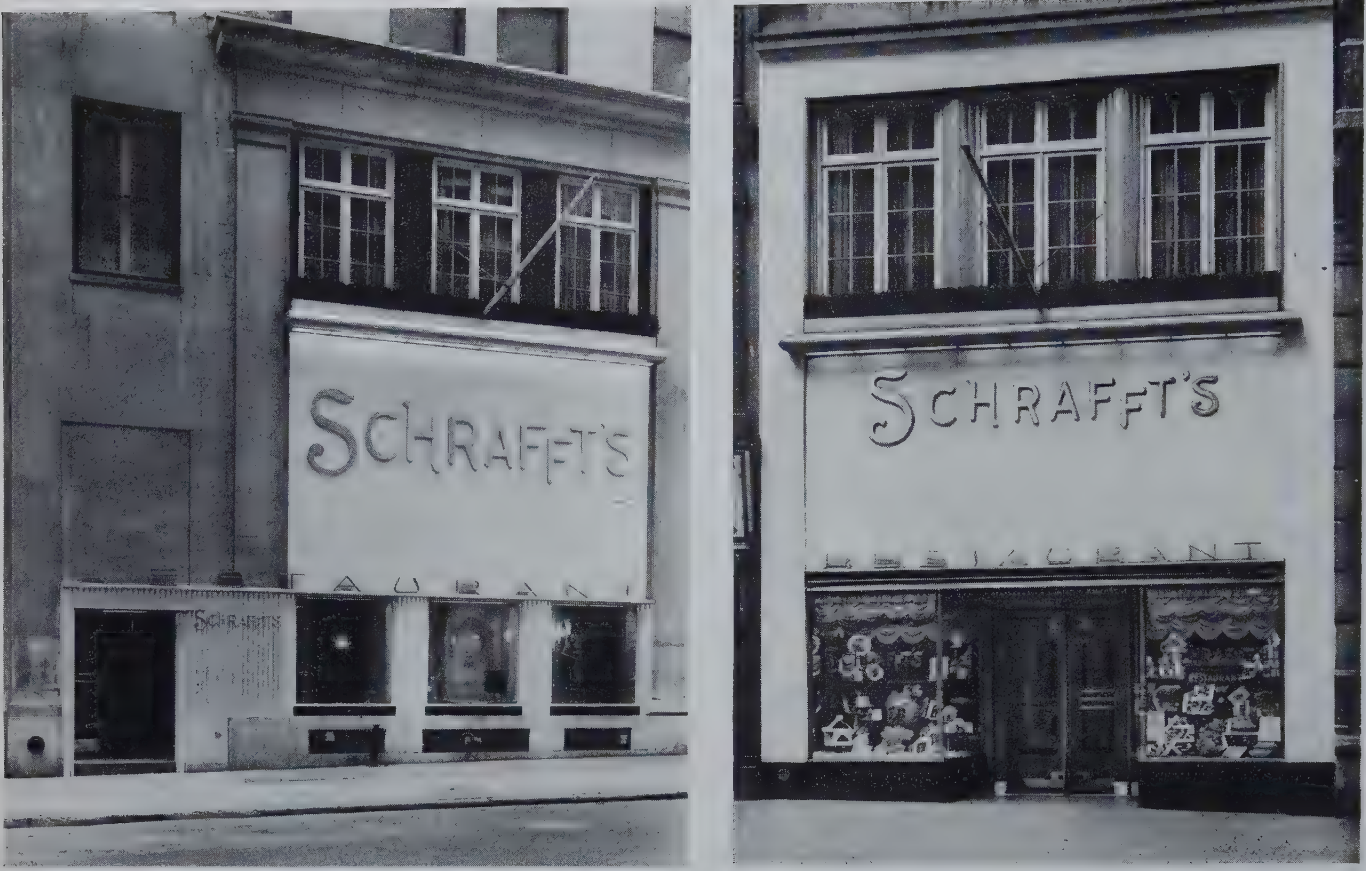
SCHRAFFT'S STORES — BLOCH & HESSE, ARCHITECTS, NEW YORK



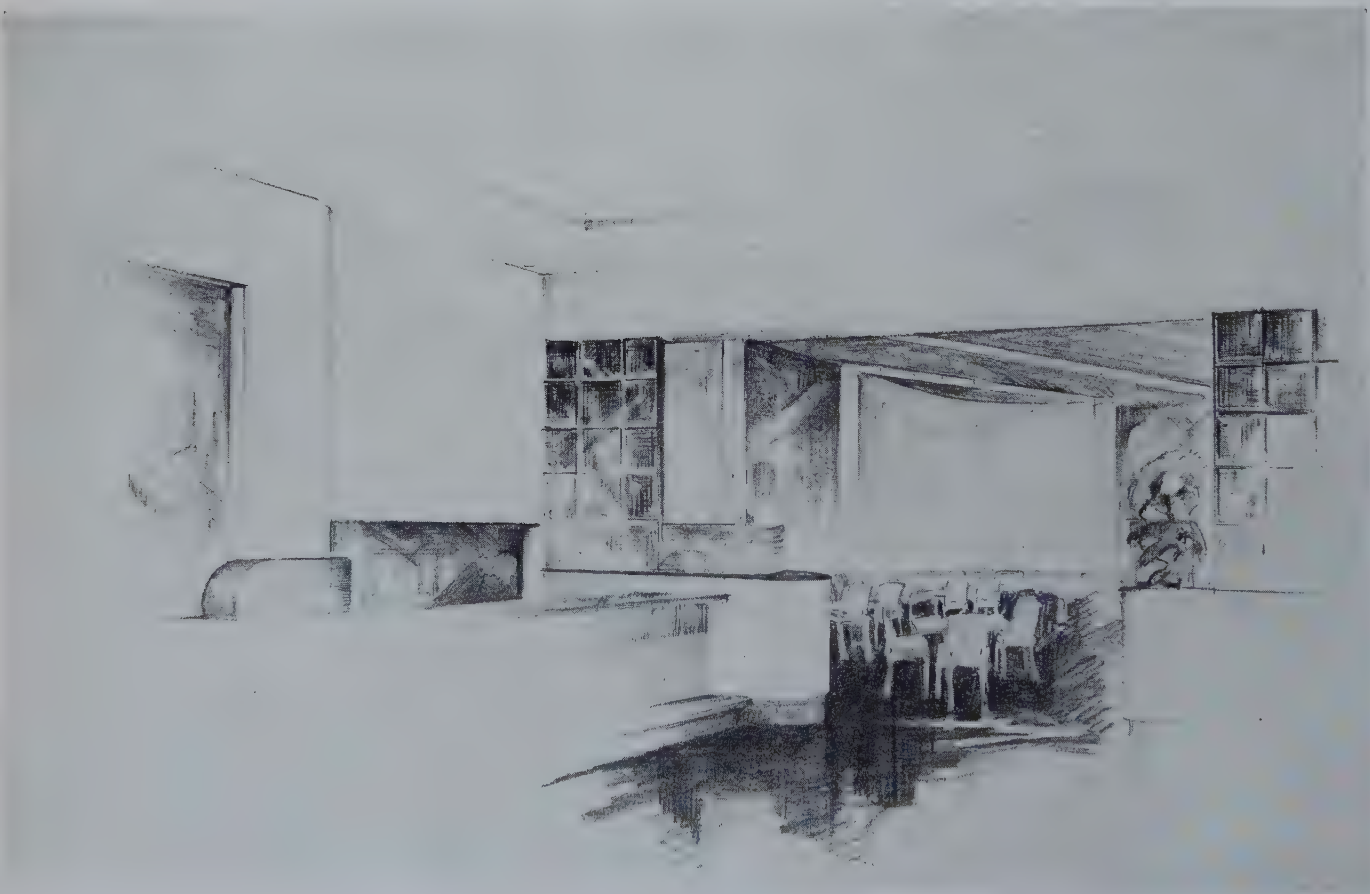
WHEN IT WAS DECIDED TO MODERNIZE THE 43RD STREET FAÇADE OF THE SCHRAFFT'S RESTAURANT EXTENDING FROM 13 EAST 42ND TO 18 EAST 43RD THE SCHEME SKETCHED ABOVE WAS SELECTED. THE PHOTOGRAPH AT THE RIGHT SHOWS THIS FAÇADE BEFORE MODERNIZATION. THE MATERIALS USED BY BLOCH & HESSE WERE BRONZE AND GLASS, AT THE STREET LEVEL, COMBINED WITH "COLORADO YULE" GOLDEN-VEINED WHITE MARBLE. PHOTOGRAPHS BY GOTTSCHO OF BOTH THE REMODELED FRONTS OF THIS RESTAURANT ARE REPRODUCED OVER-PAGE



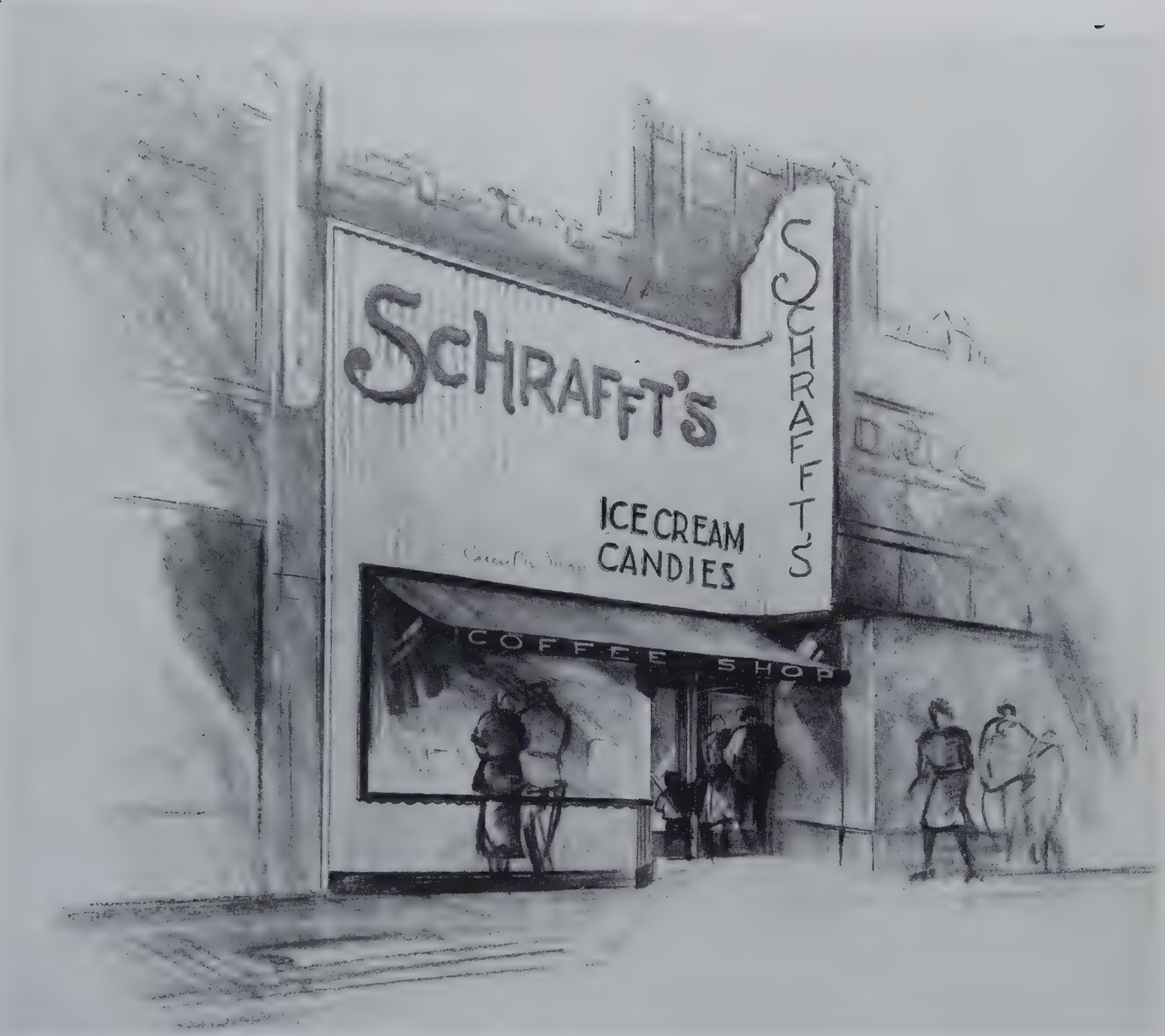
SCHRAFFT'S STORES — BLOCH & HESSE, ARCHITECTS, NEW YORK



THE MODERNIZED FAÇADES ABOVE BELONG TO THE SAME STORE—18 EAST 43RD (LEFT) AND 13 EAST 42ND (RIGHT). THE PENCIL STUDY OF AN INTERIOR, BELOW, WAS MADE FOR THE SUMMER ST. STORE, BOSTON

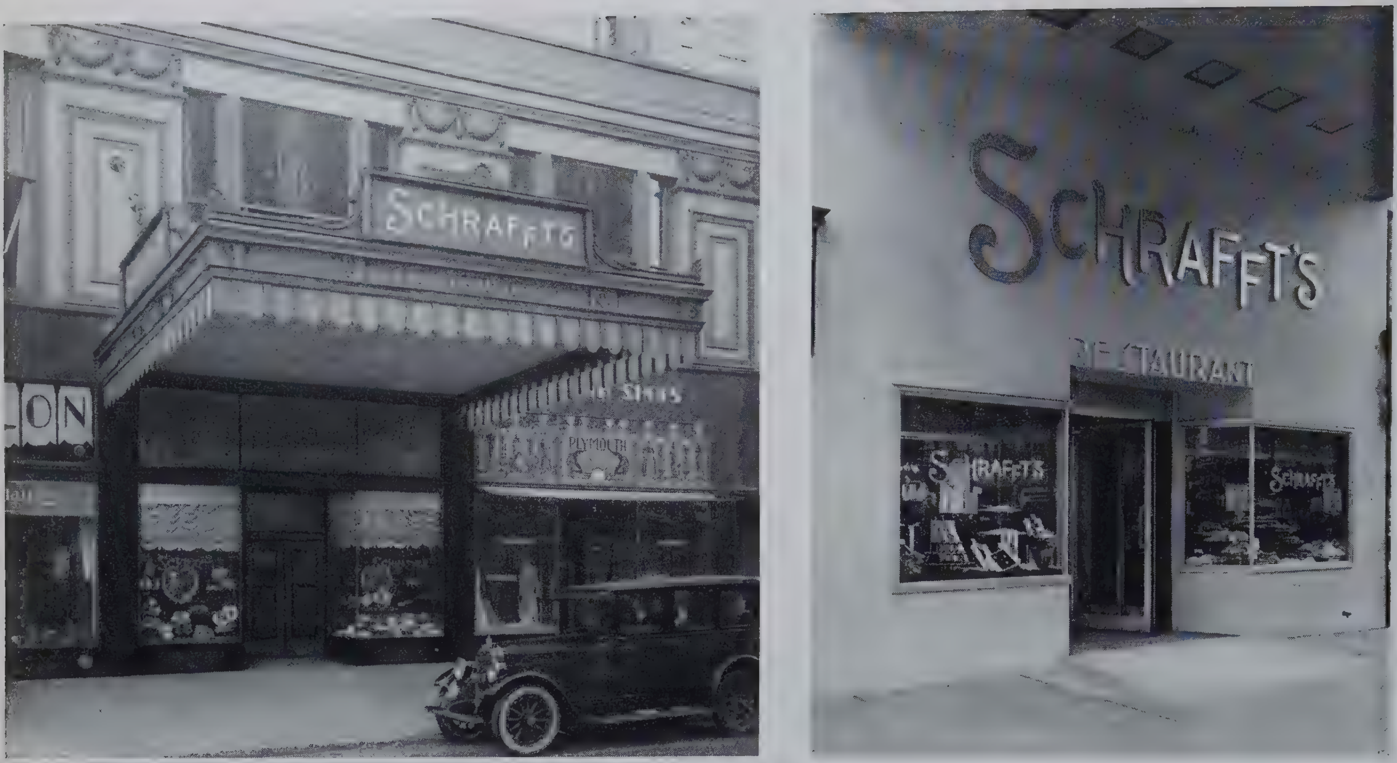


SCHRAFFT'S STORES — BLOCH & HESSE, ARCHITECTS, NEW YORK

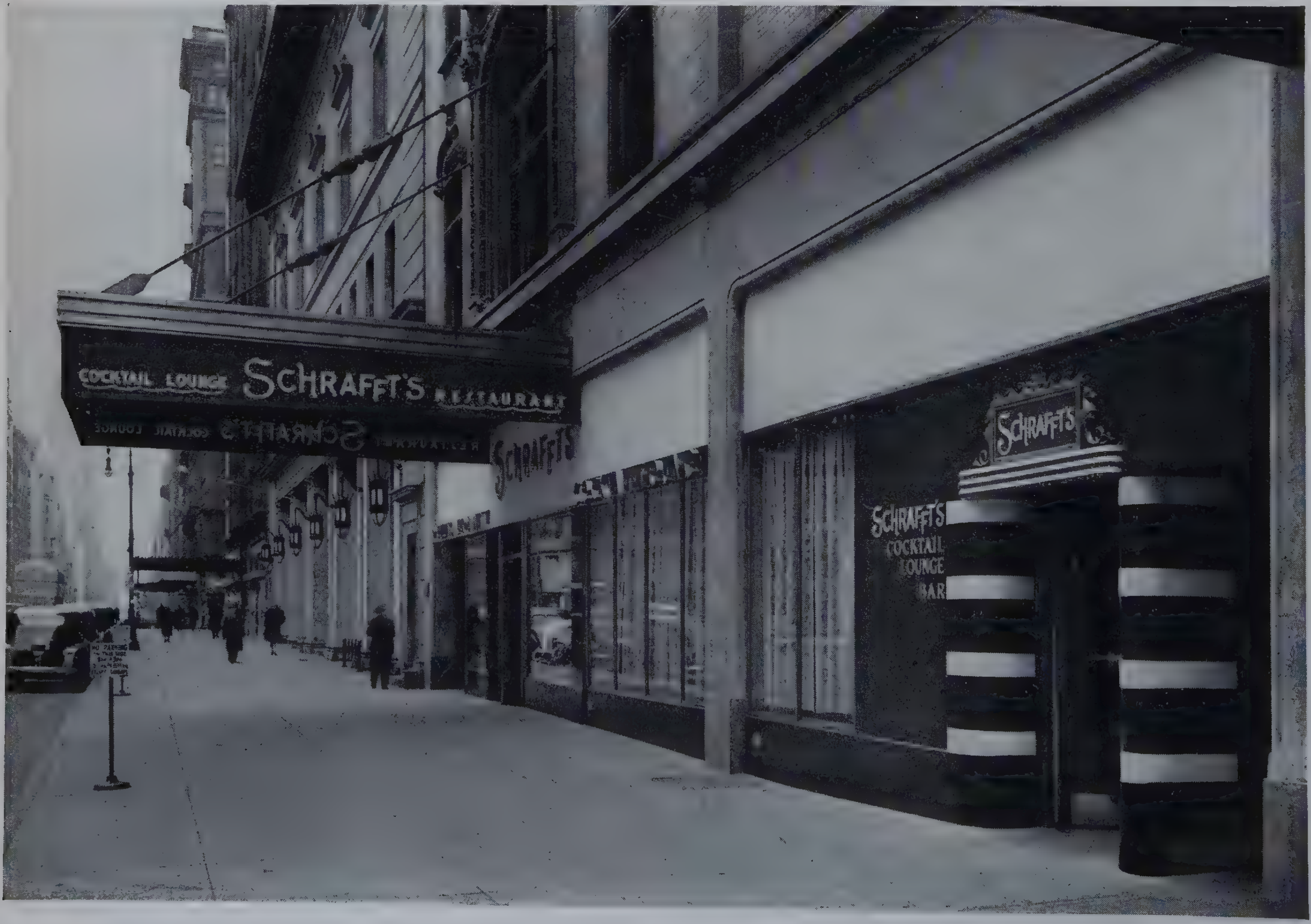


A SCHEME FOR A NEW SCHRAFFT'S SHOP CONSTRUCTED IN BROOKLINE, MASSACHUSETTS, COMBINING TRANSITE AND GLASS IS SHOWN ABOVE. INTERIOR STUDIES FOR THE BOSTON STORE ARE SHOWN BELOW

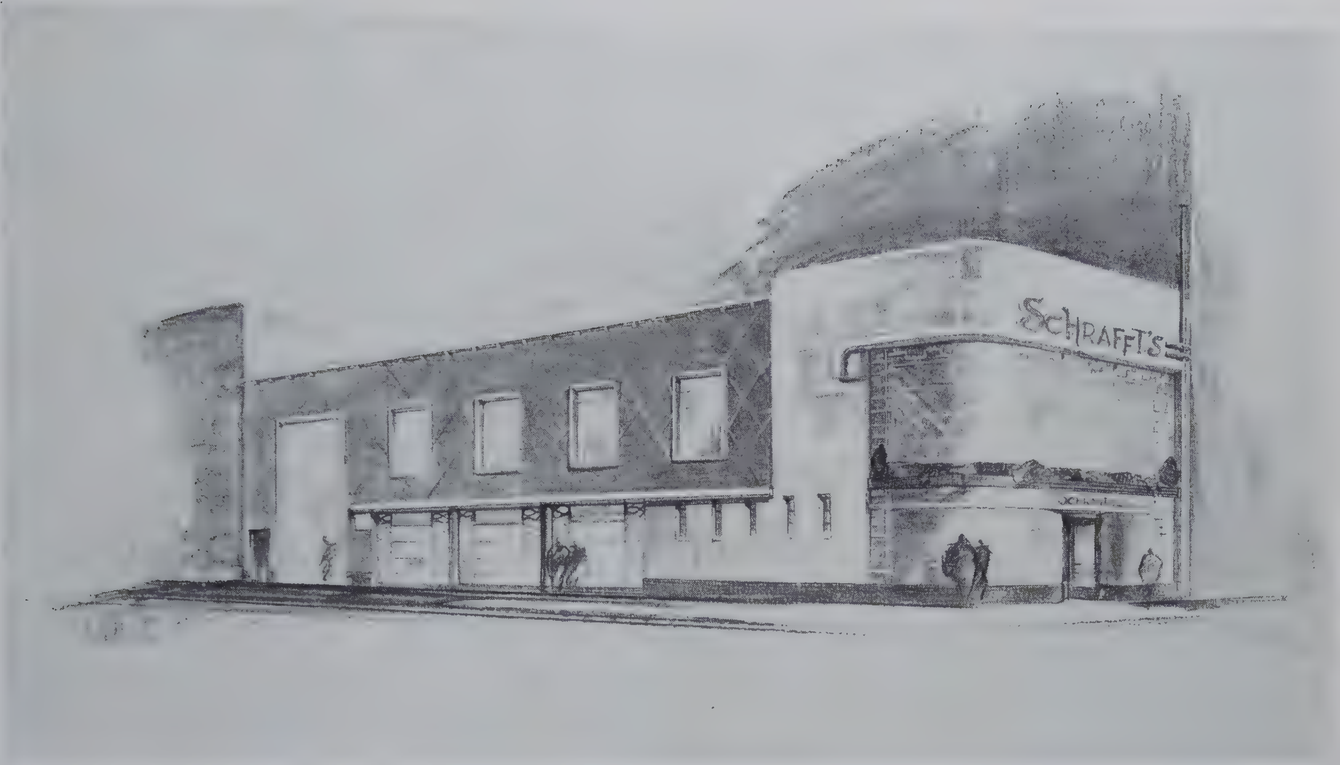
SCHRAFFT'S STORES — BLOCH & HESSE, ARCHITECTS, NEW YORK



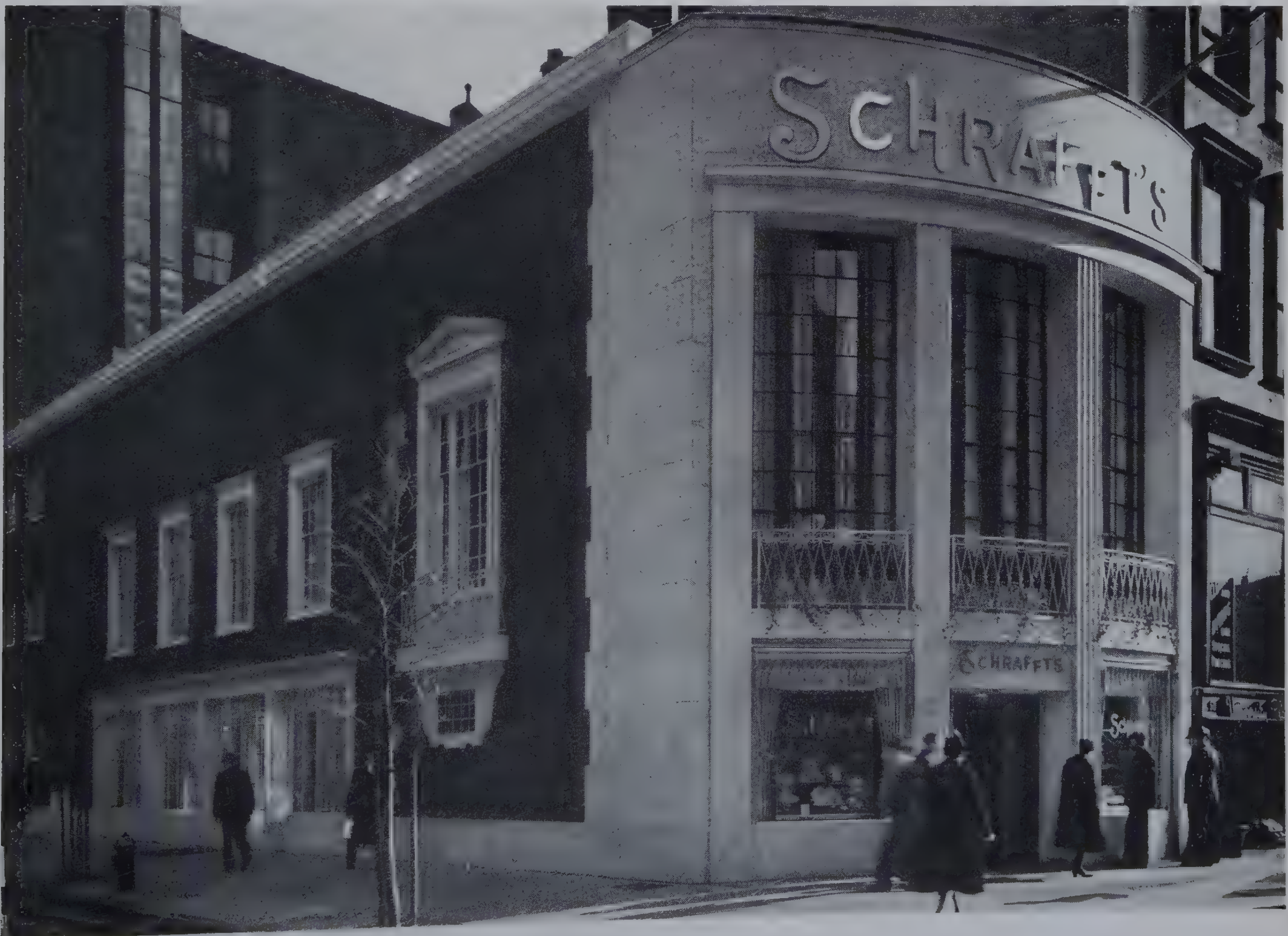
A STARTLING "BEFORE AND AFTER" CONTRAST IS PROVIDED BY THESE PHOTOGRAPHS OF THE OLD FRONT AT 2285 BROADWAY AND THE NEW MARBLE AND ALUMINUM FRONT (RIGHT) BY BLOCH & HESSE. THE NEW FAÇADE OF THE RESTAURANT, STORE, AND BAR AT 220 WEST 57TH STREET IS SHOWN BELOW



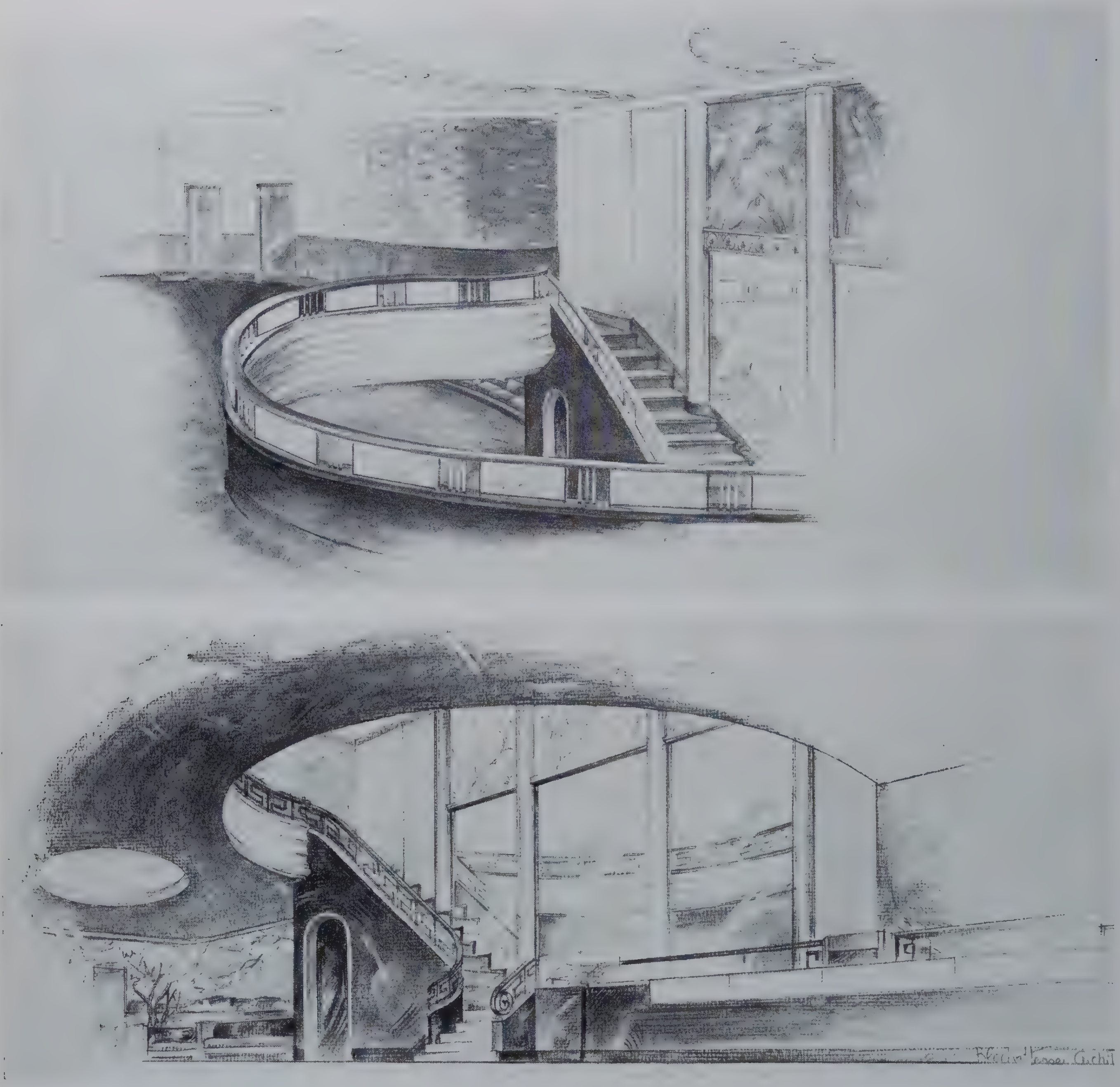
SCHRAFFT'S STORES — BLOCH & HESSE, ARCHITECTS, NEW YORK



THE FIRST STUDY MADE FOR THE SCHRAFFT'S STORE AT 61 FIFTH AVENUE IS SHOWN HERE, FOR COMPARISON WITH THE STORE AS BUILT (BELOW). ROSE BRICK, "SOUTH DOVER" MARBLE QUARRIED IN UPPER NEW YORK STATE, ALUMINUM, AND GLASS WERE USED. THE NEW PHOTOS ARE BY GOTTSCHO

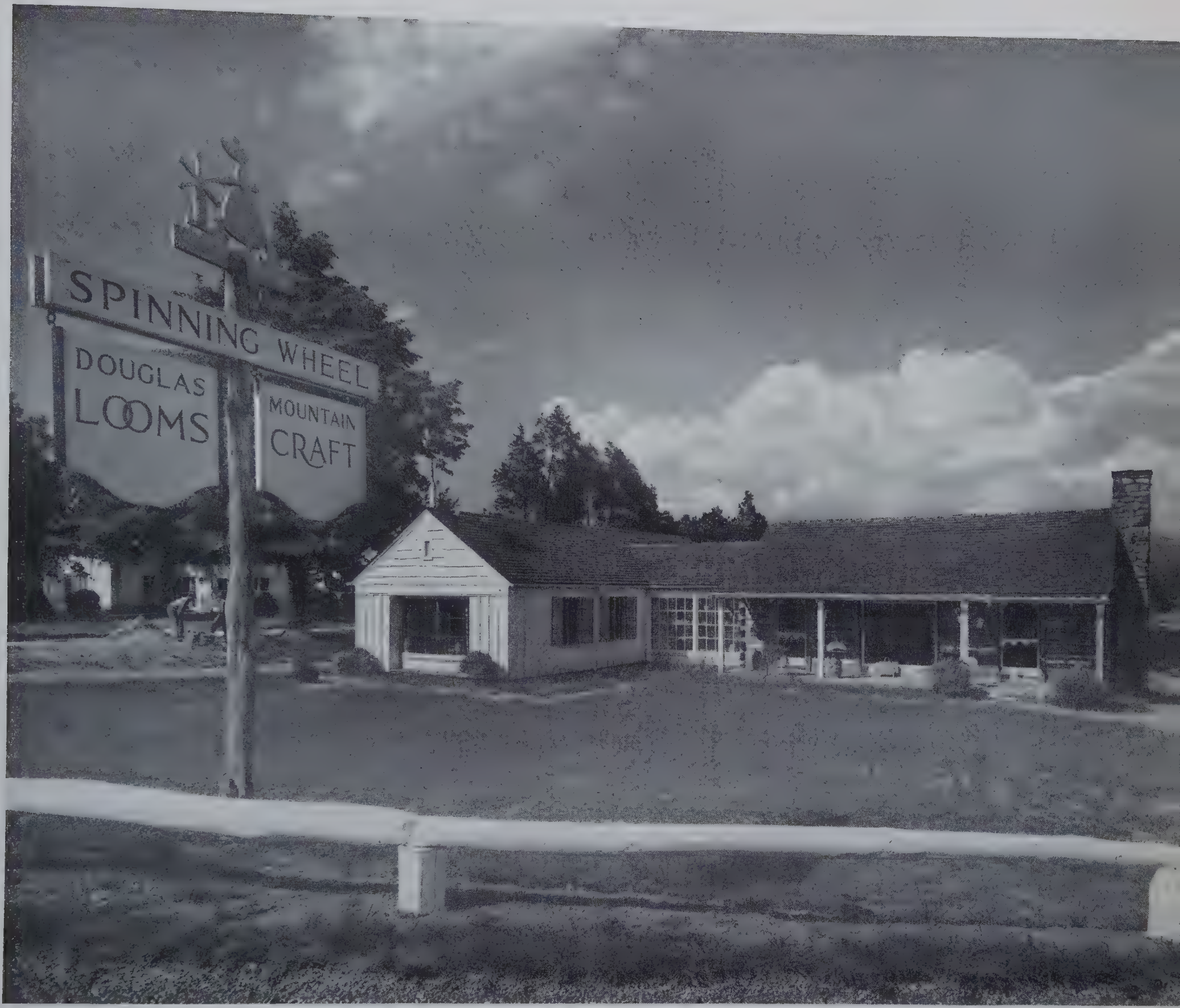


SCHRAFFT'S STORES — BLOCH & HESSE, ARCHITECTS, NEW YORK

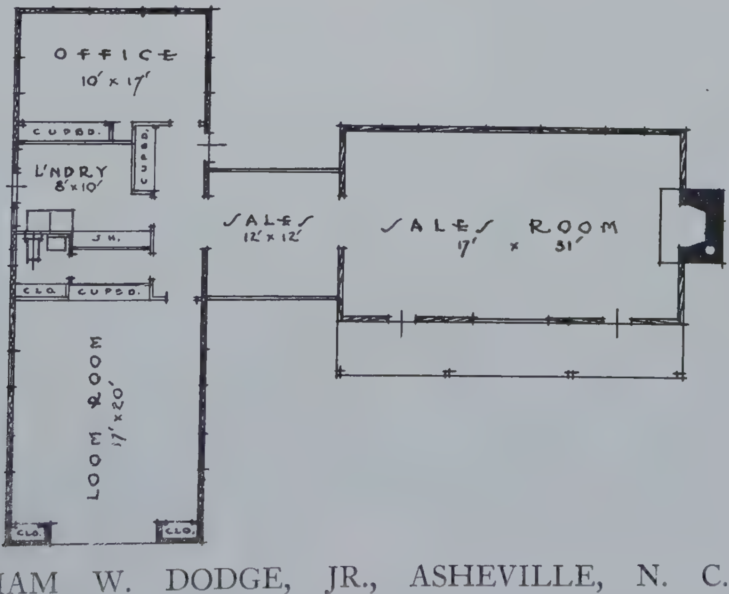


THE PRELIMINARY PENCIL STUDIES SHOWN HERE WERE MADE WHEN SCHRAFFT'S STORE AT 61 FIFTH AVENUE WAS BEING DESIGNED. THIS INTERIOR SCHEME LINKS THE DINING ROOMS ON THE TWO FLOORS

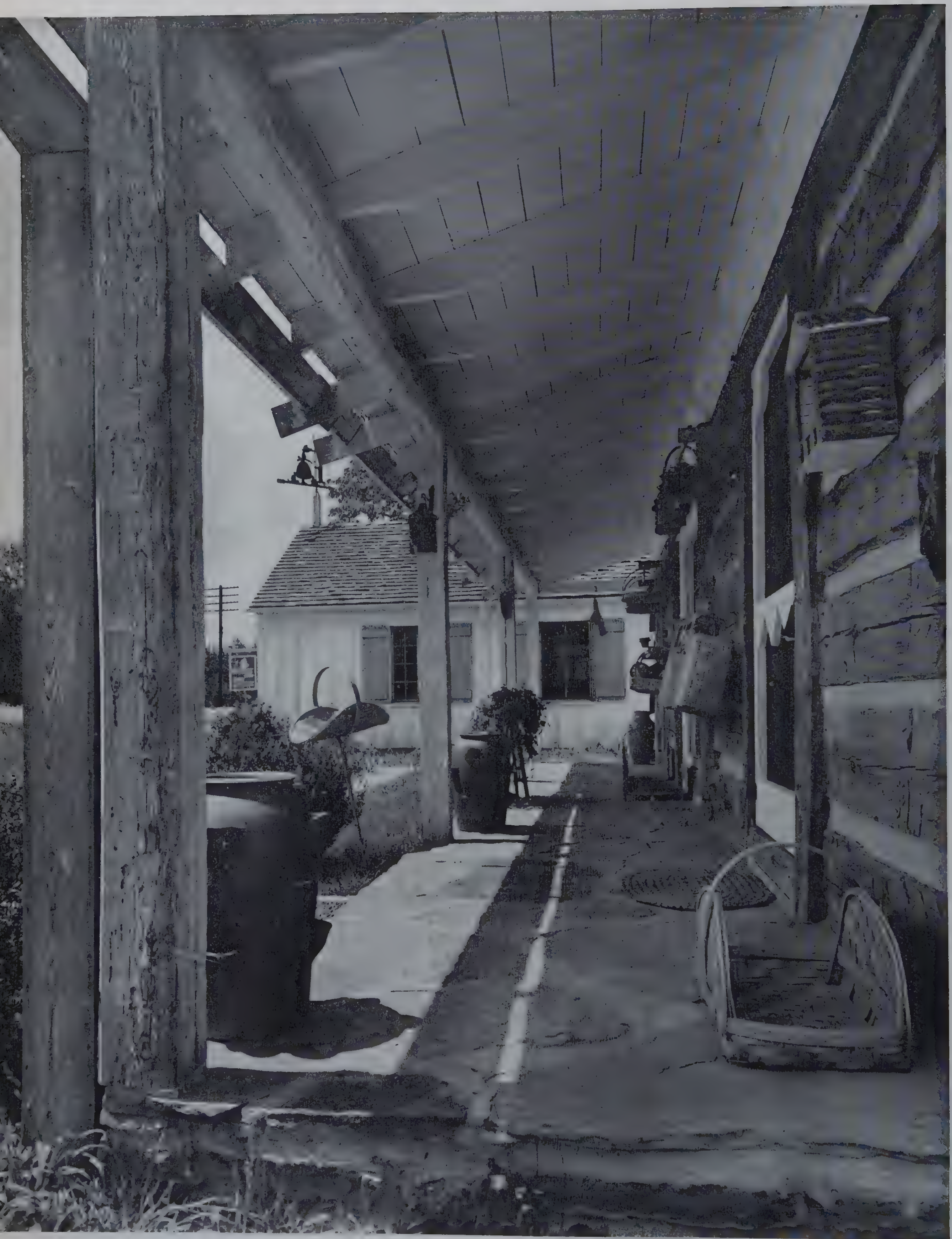
SCHRAFFT'S STORES — BLOCH & HESSE, ARCHITECTS, NEW YORK



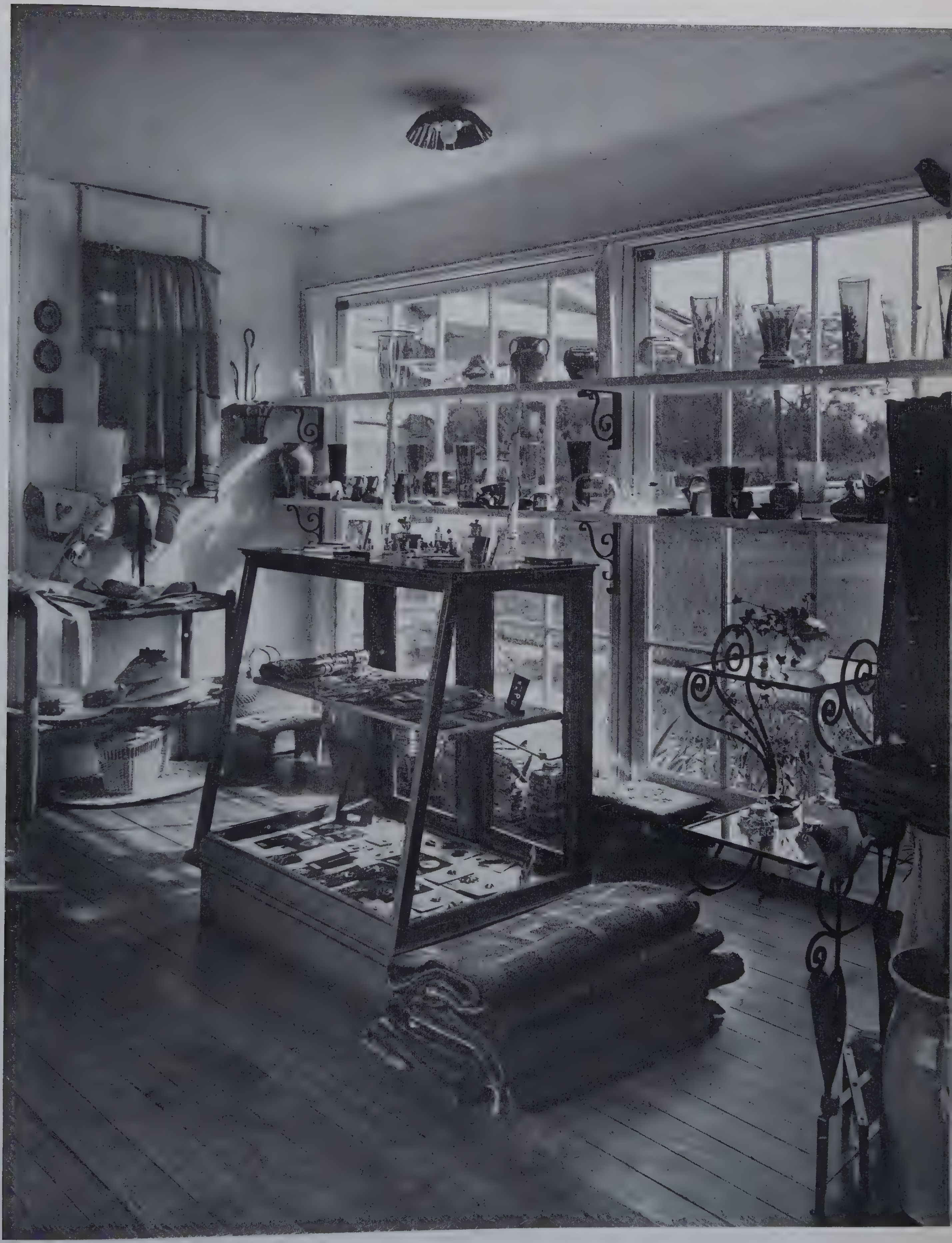
THIS ATTRACTIVE ROADSIDE SHOP, KNOWN AS THE "SPINNING WHEEL," IS ONE OF SEVERAL BUILDINGS DESIGNED FOR A CRAFT GROUP LOCATED NEAR ASHEVILLE, NORTH CAROLINA, BY WILLIAM W. DODGE, JR.



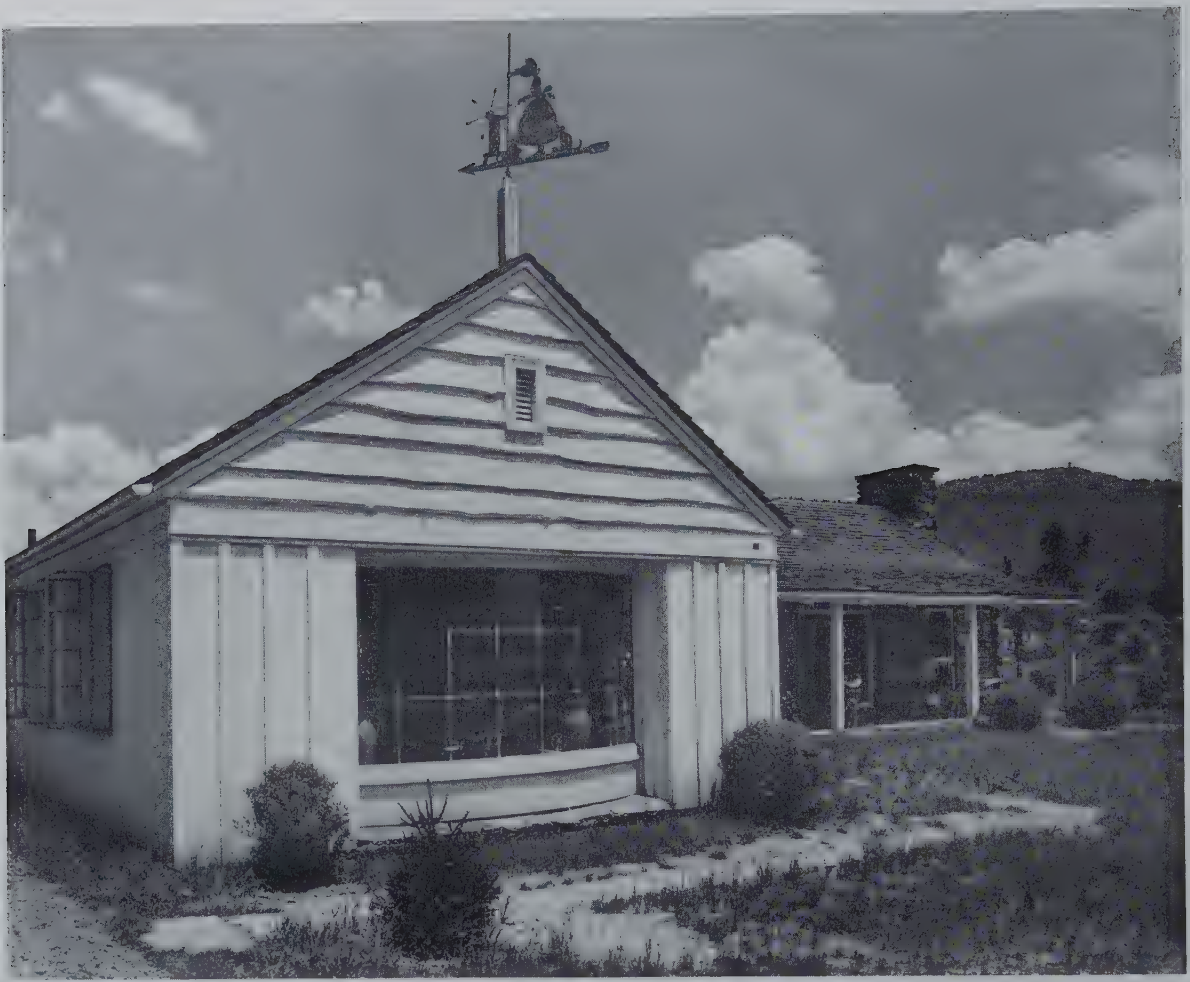
RURAL SHOP—BY WILLIAM W. DODGE, JR., ASHEVILLE, N. C.

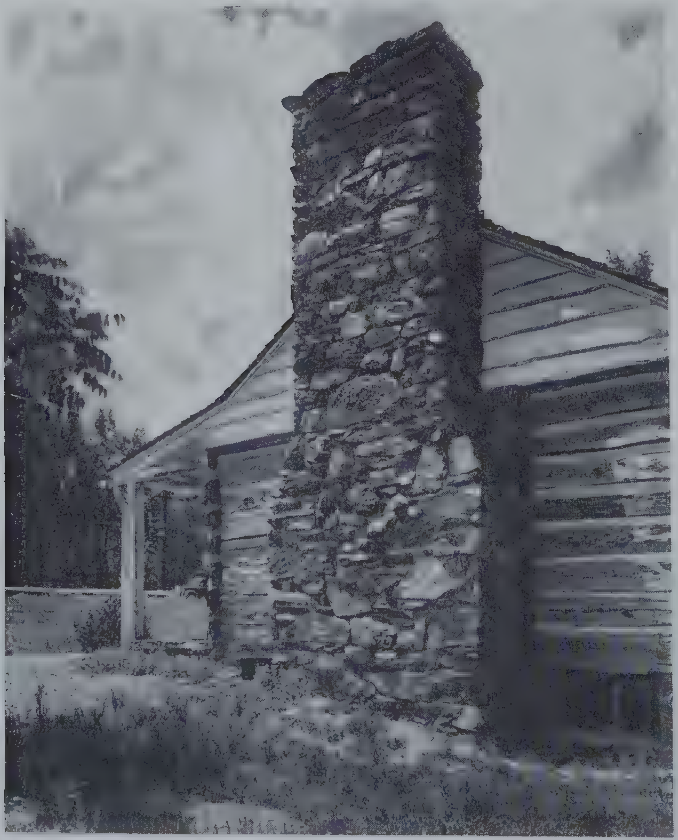


THE PLEASANT STONE-PAVED PORCH IS USED TO DISPLAY BASKETS, LARGER POTTERY AND OTHER OBJECTS



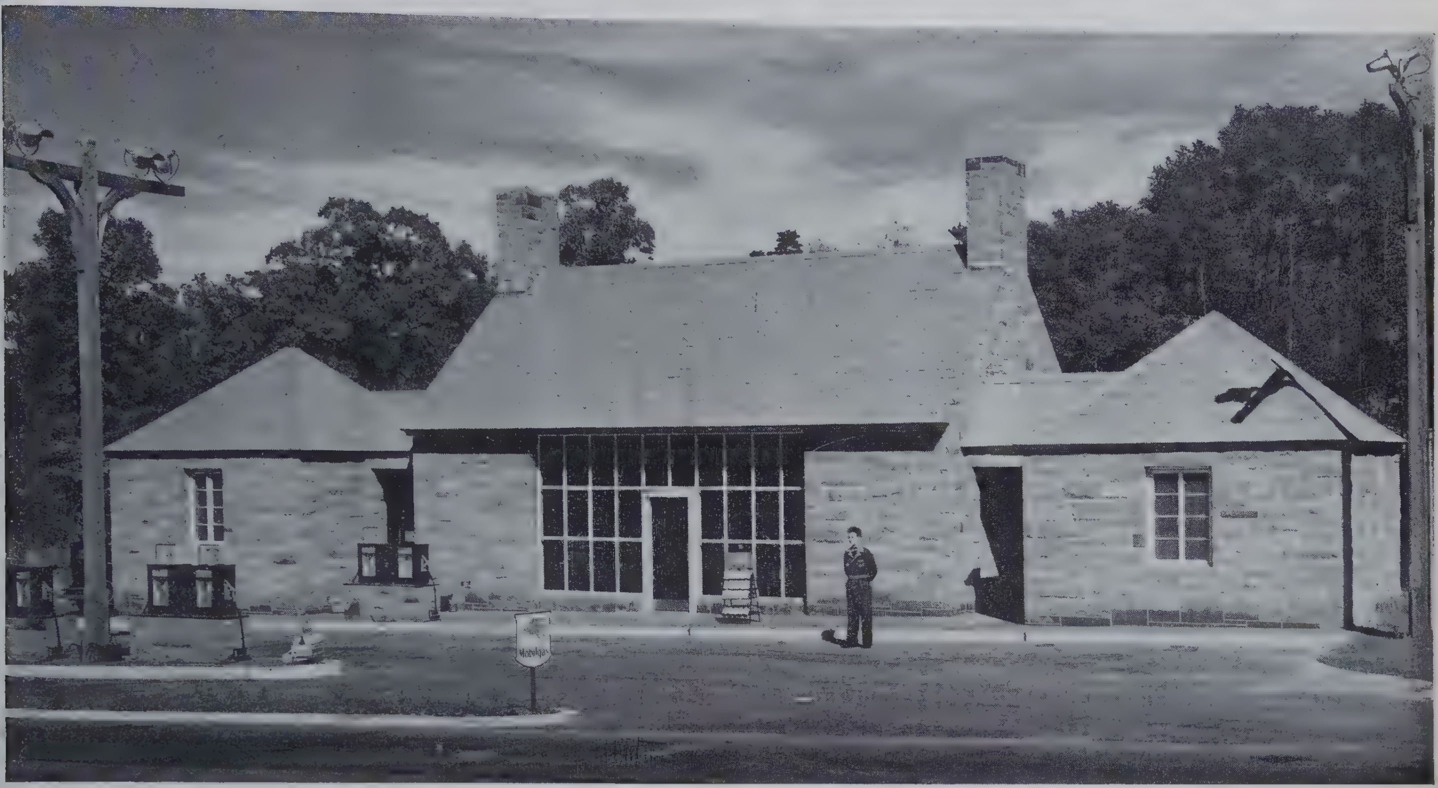
SALES ROOMS OF THE SHOP ARE LIGHT AND QUITE SIMPLE. THIS ONE IS BESIDE THE LOOM ROOM



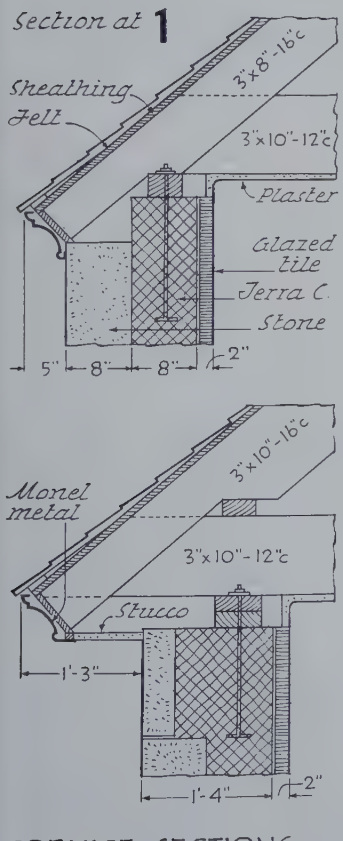


ADDITIONAL VIEWS OF THE EXTERIOR OF THE "SPINNING WHEEL" NEAR ASHEVILLE, NORTH CAROLINA, SHOW THE ARCHITECT'S CAREFUL ATTENTION TO DETAILS —SUCH AS THE HEWN SIDING AND THE BIG STONE CHIMNEY. THE LARGE WINDOW (ABOVE) LIGHTS THE LOOM ROOM OF THIS SMALL BUILDING AND THE PORCH BEYOND GIVES ACCESS TO THE PRINCIPAL SALES ROOM. THE FIREPLACE, OF COURSE, SERVES TO DISPLAY FIREPLACE EQUIPMENT AND ACCESSORIES AS WELL AS TO WARM THE SALES ROOMS IN WINTER

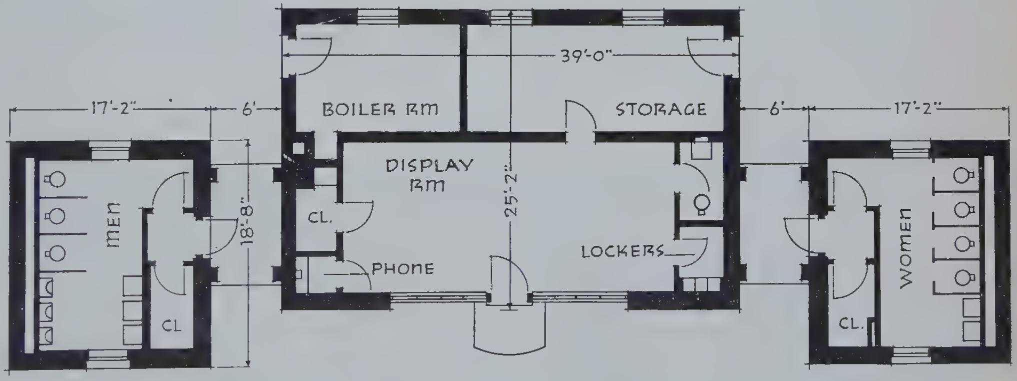
RURAL SHOP—BY WILLIAM W. DODGE, JR., ASHEVILLE, N. C.



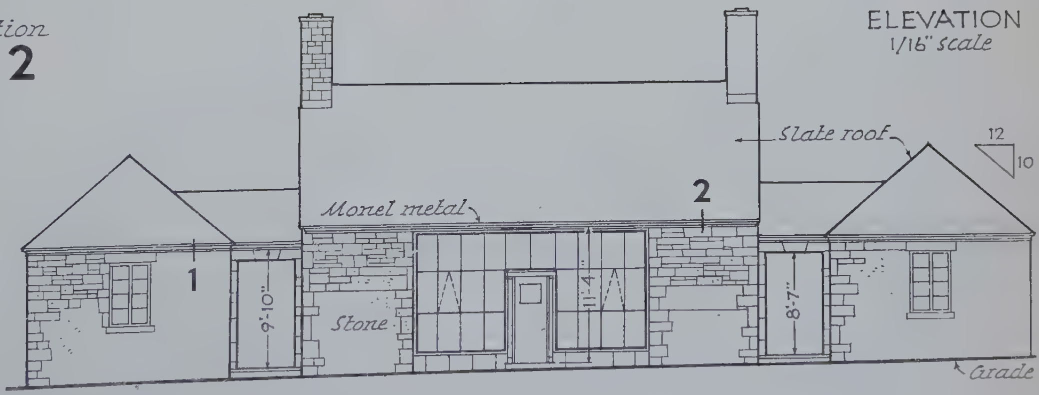
RODNEY McCAY MORGAN



CORNICE SECTIONS 1/2" scale



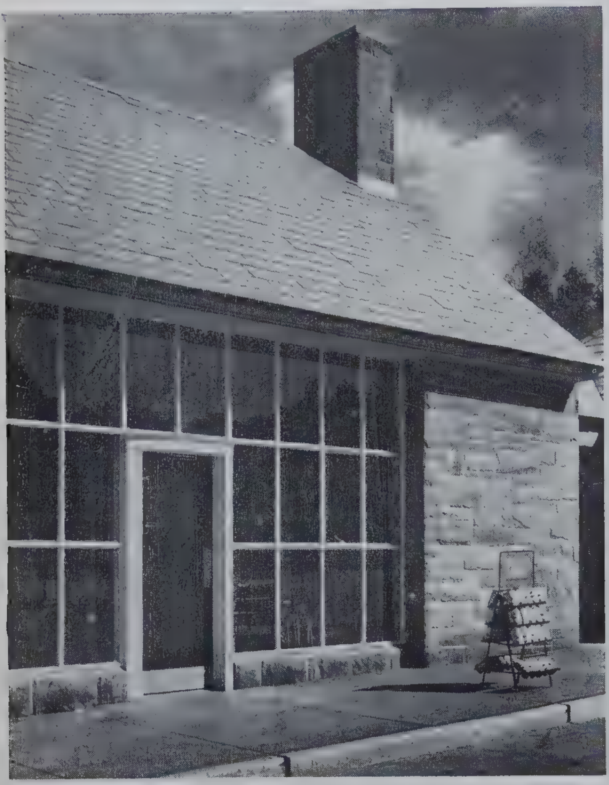
PLAN 1/16" scale



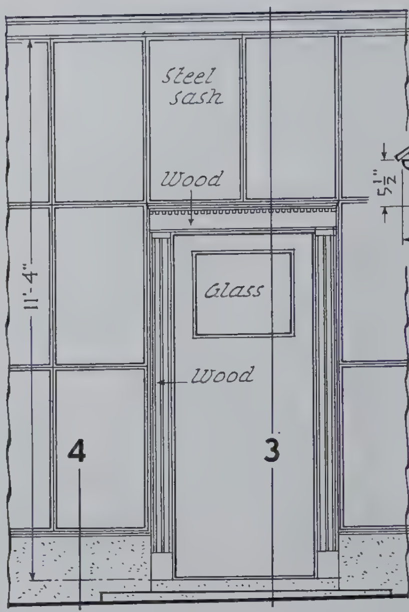
ELEVATION 1/16" scale

CITY OF NEW YORK . . . DEPT OF PARKS

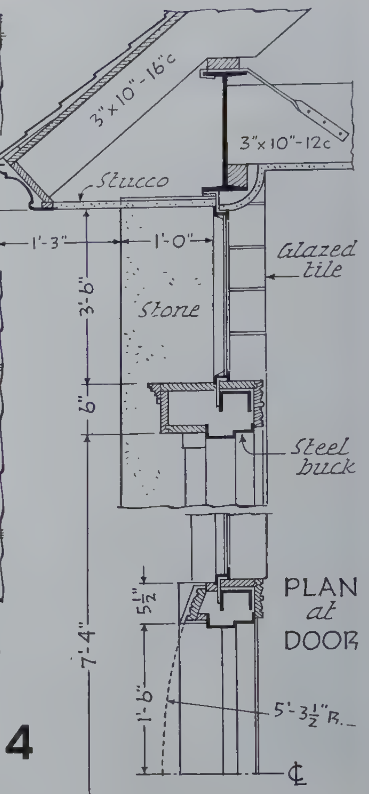
AYMAR EMBURY, II. . . Architect

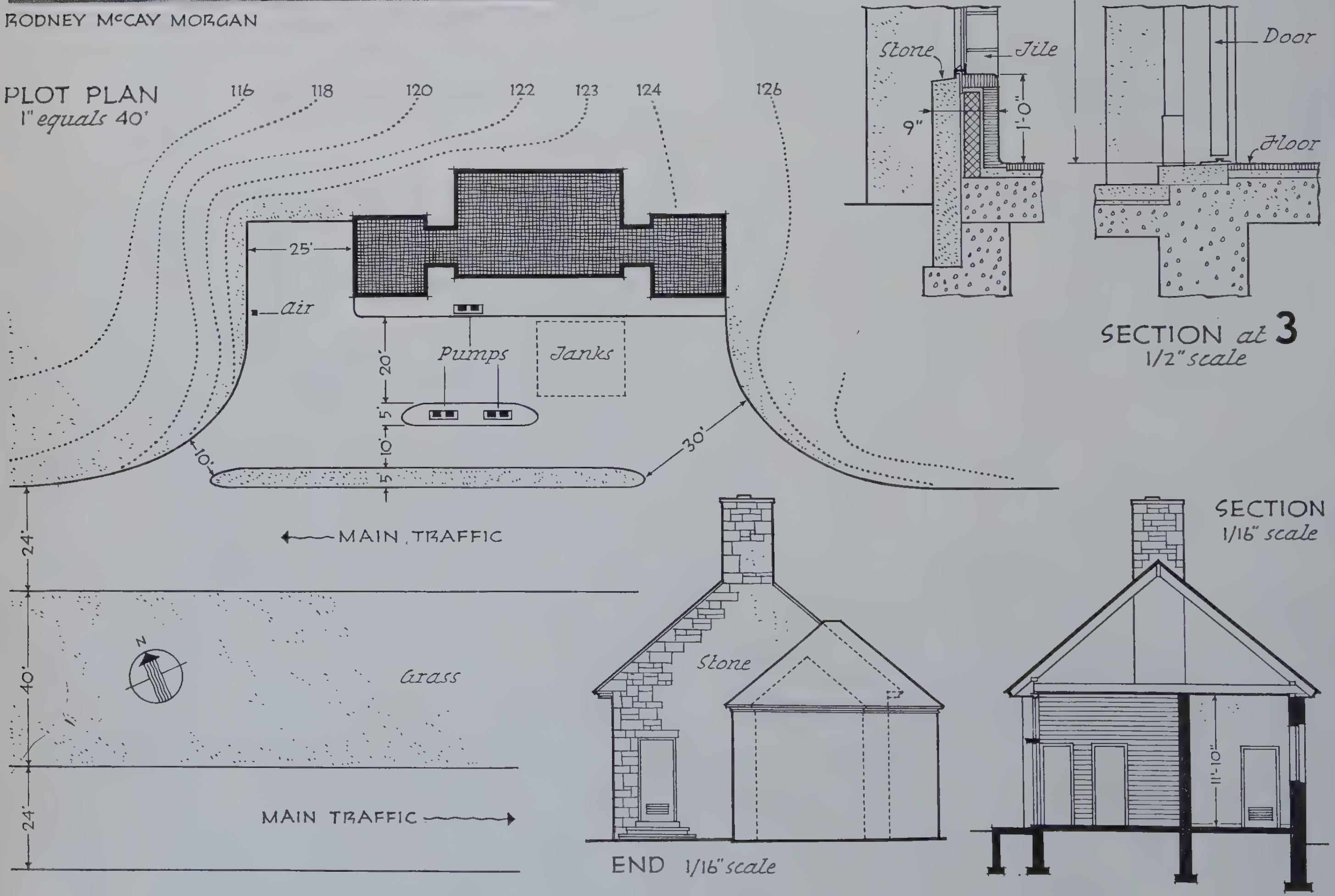


RODNEY McCAY MORGAN



MAIN ENTRANCE ELEVATION
1/4" scale





SECTION at 4
1/2" scale

SECTION at 3
1/2" scale

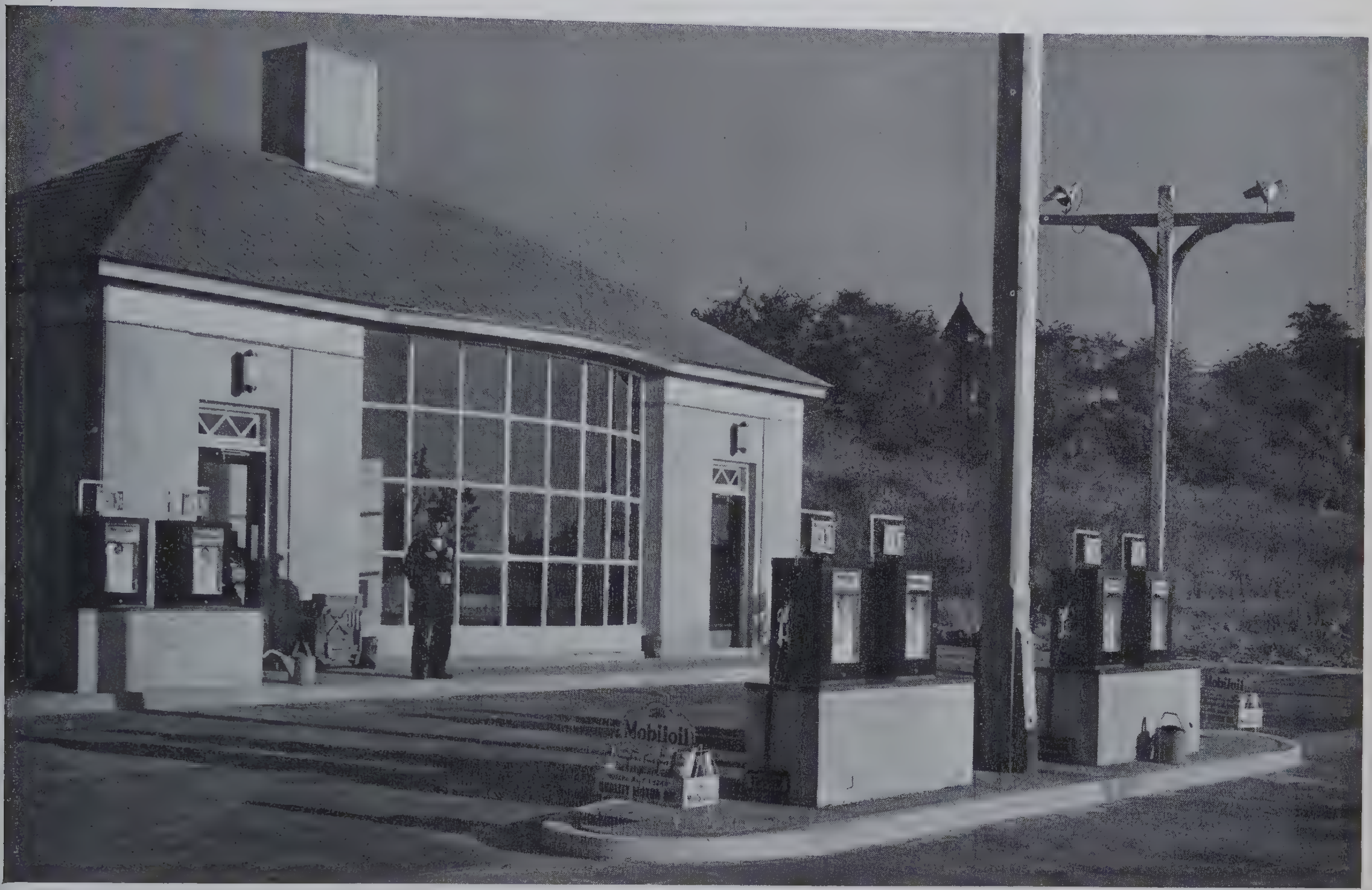
PLOT PLAN
1" equals 40'

END 1/16" scale

SECTION
1/16" scale

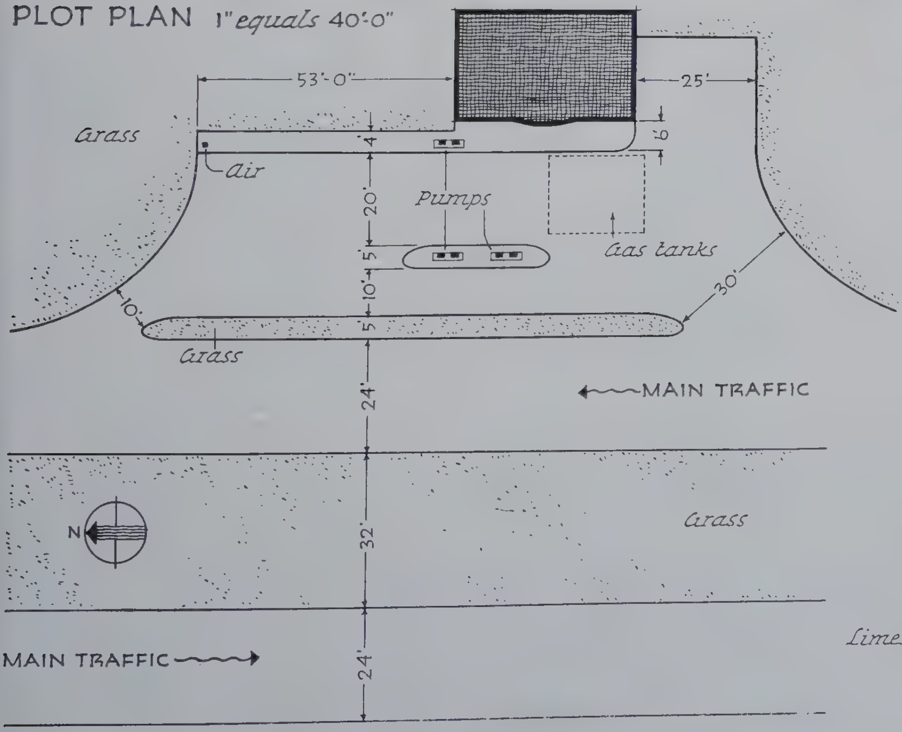
CITY OF NEW YORK . . . DEPT. OF PARKS

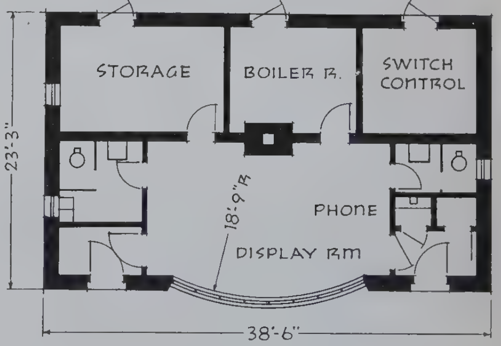
AYMAR EMBURY, II . . . Architect



RODNEY McCAY MORGAN

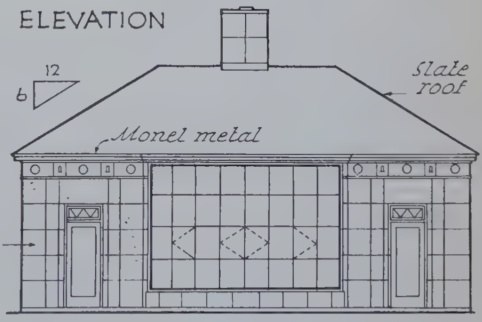
PLOT PLAN 1" equals 40'-0"





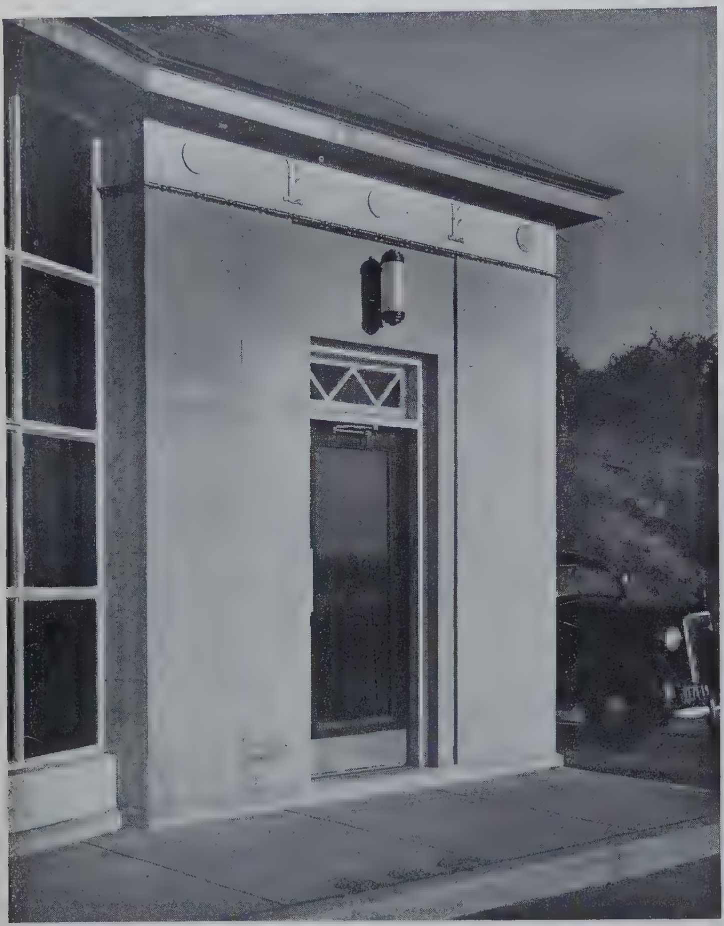
PLAN 1/16" scale

ELEVATION

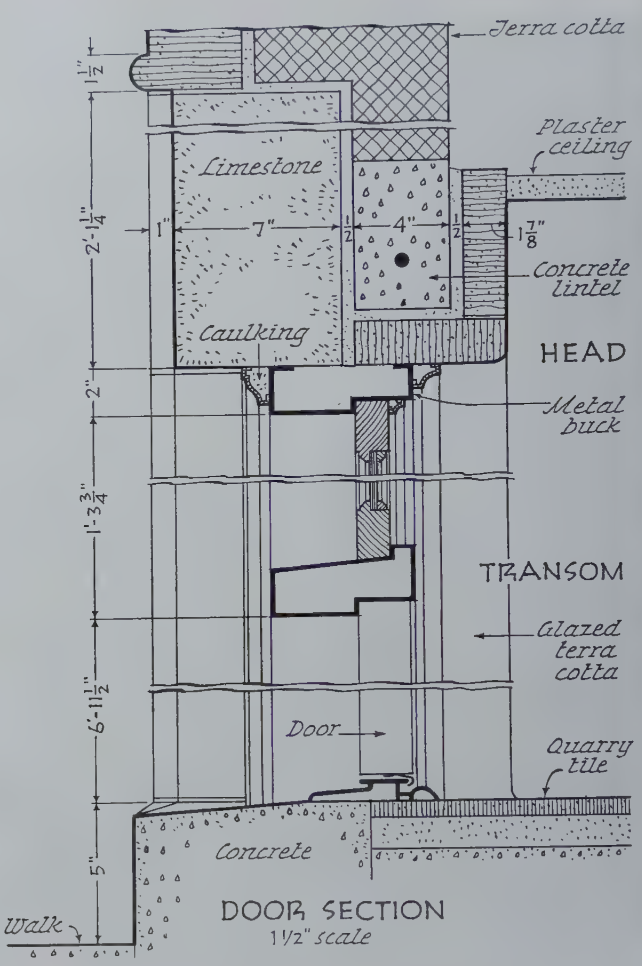


CITY OF NEW YORK . . . DEPT. OF PARKS

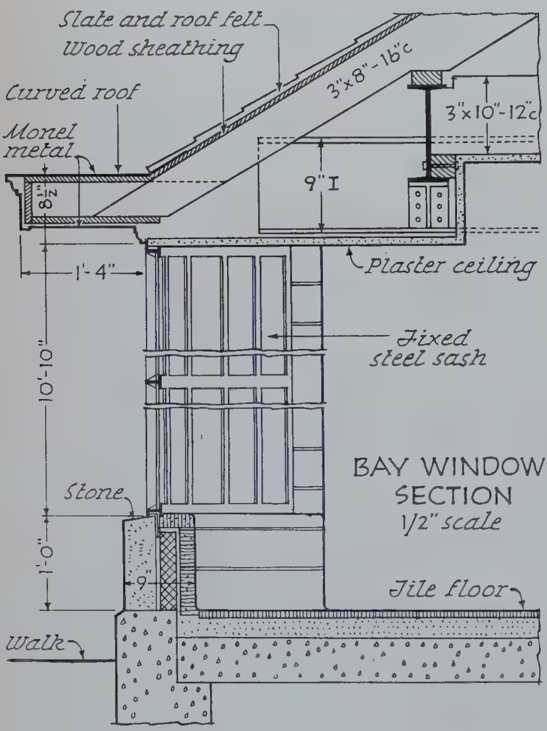
AYMAR EMBURY, II . . . Architect



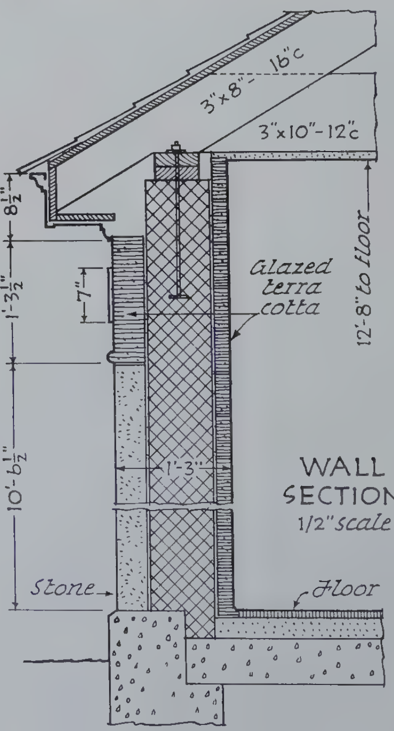
RODNEY McCAY MORGAN



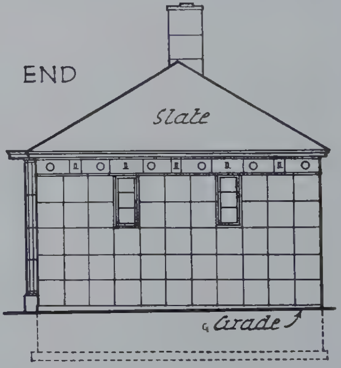
DOOR SECTION
1 1/2" scale

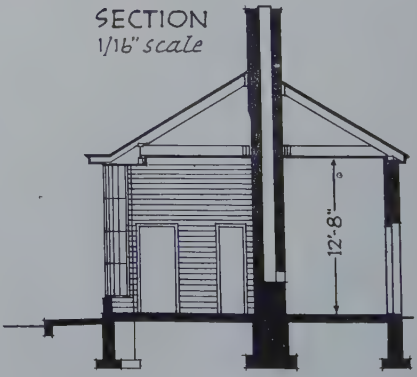


BAY WINDOW SECTION
1/2" scale



WALL SECTION
1/2" scale

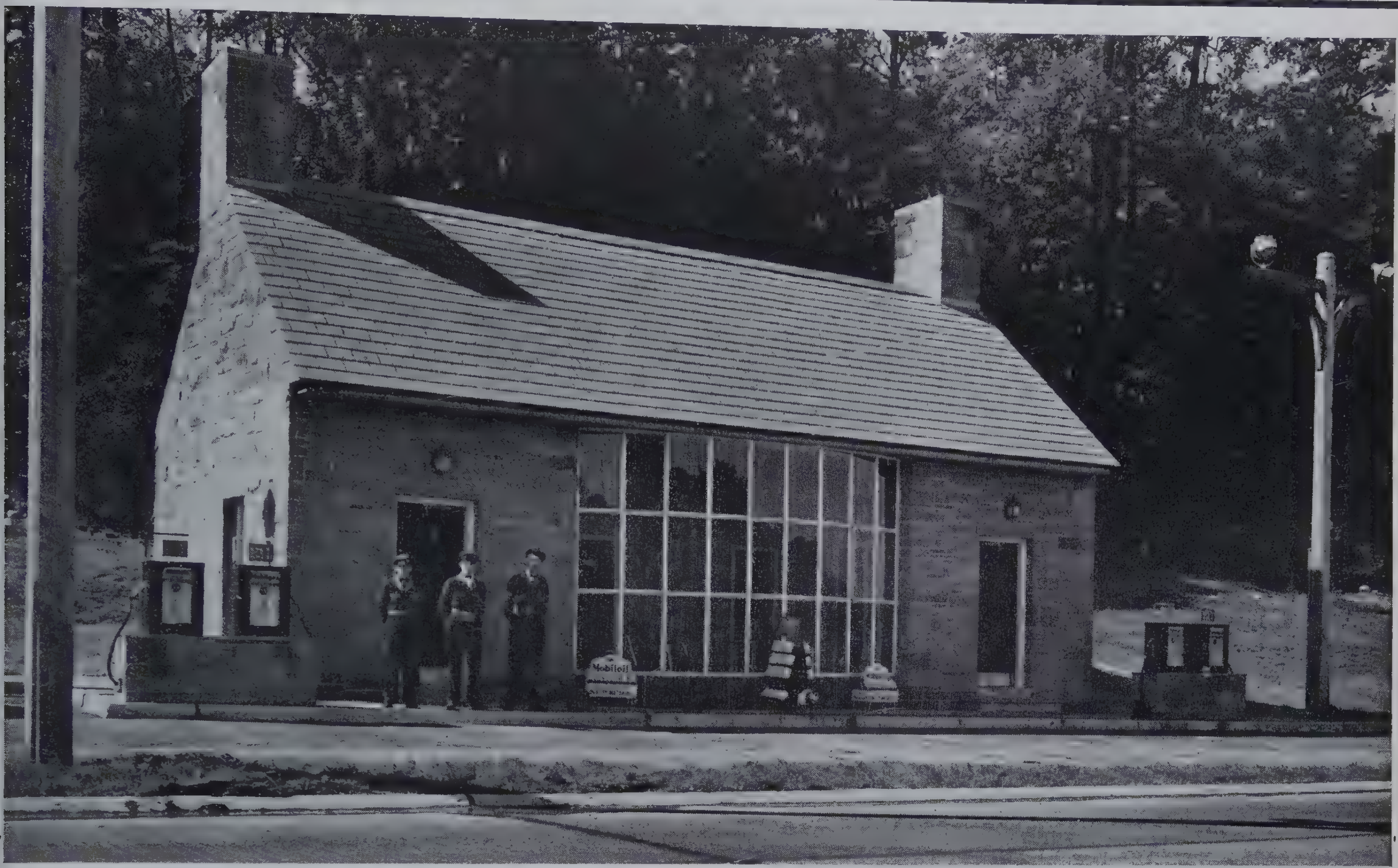




SECTION
1/16" scale

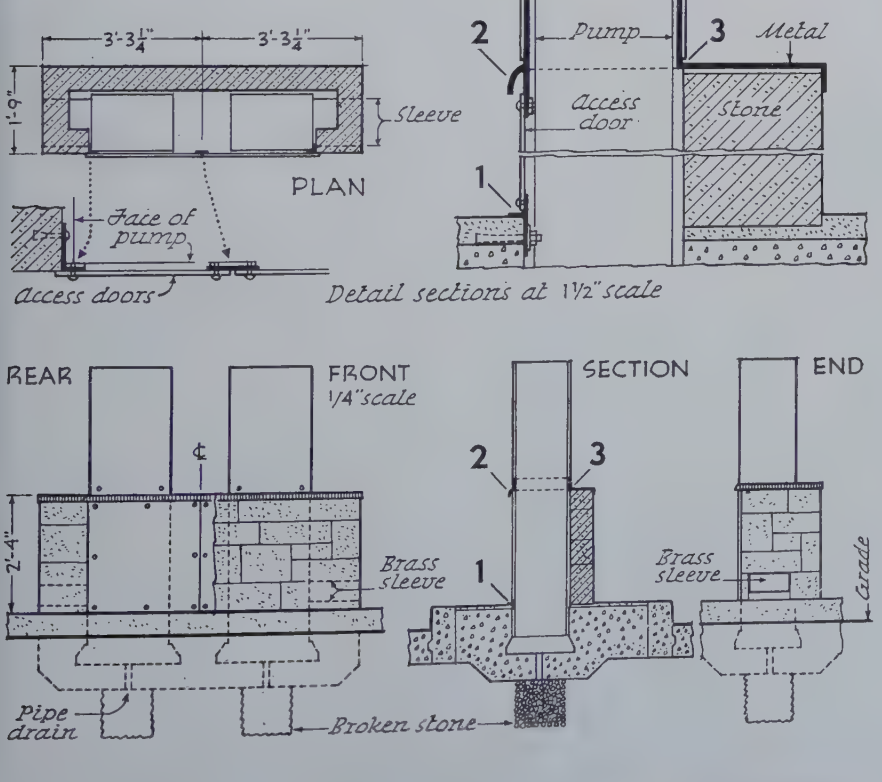
CITY OF NEW YORK . . . DEPT. OF PARKS

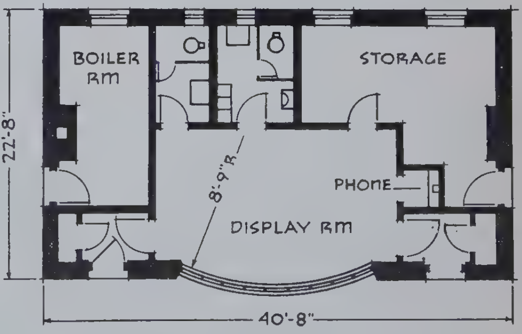
AYMAR EMBURY, II . . . *Architect*



RODNEY McCAY MORGAN

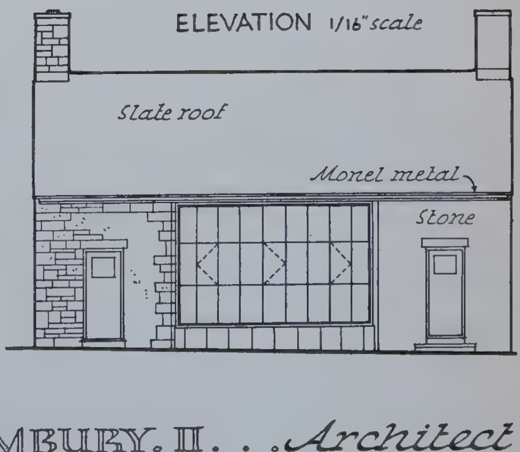
TYPICAL GASOLINE PUMPS





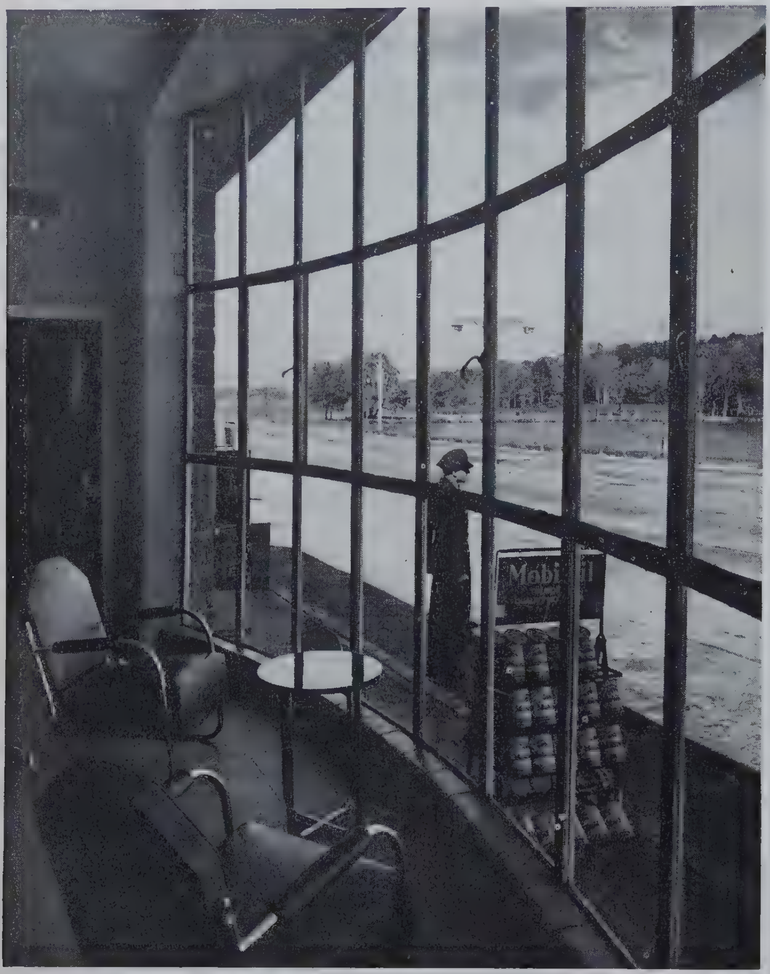
PLAN

ELEVATION 1/16" scale

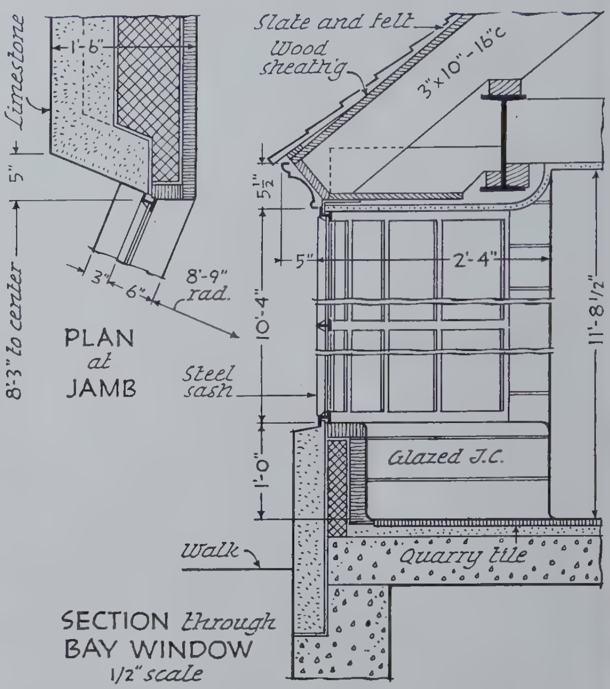


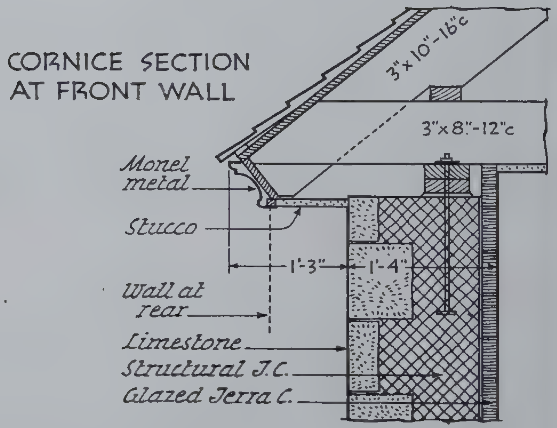
CITY OF NEW YORK . . . DEPT. OF PARKS

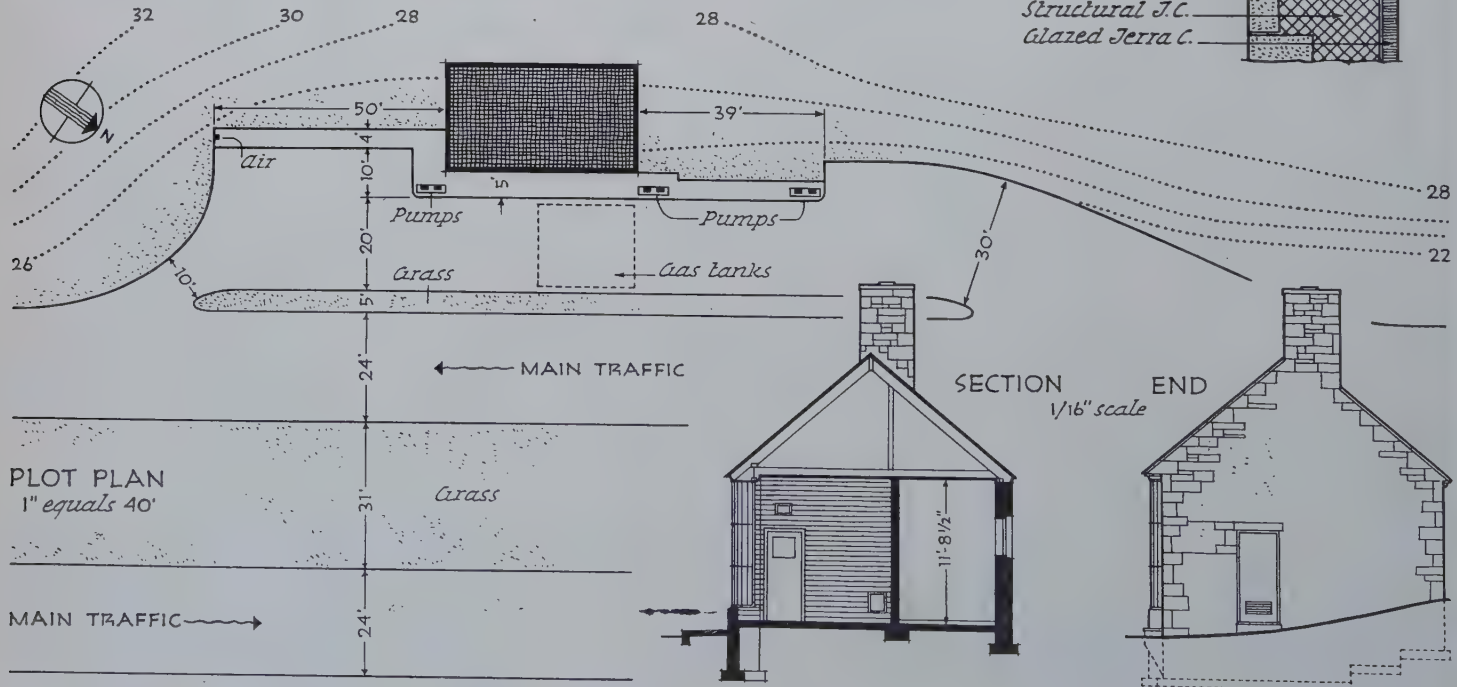
AYMAR EMBURY, II . . . Architect



RODNEY McCAY MORGAN

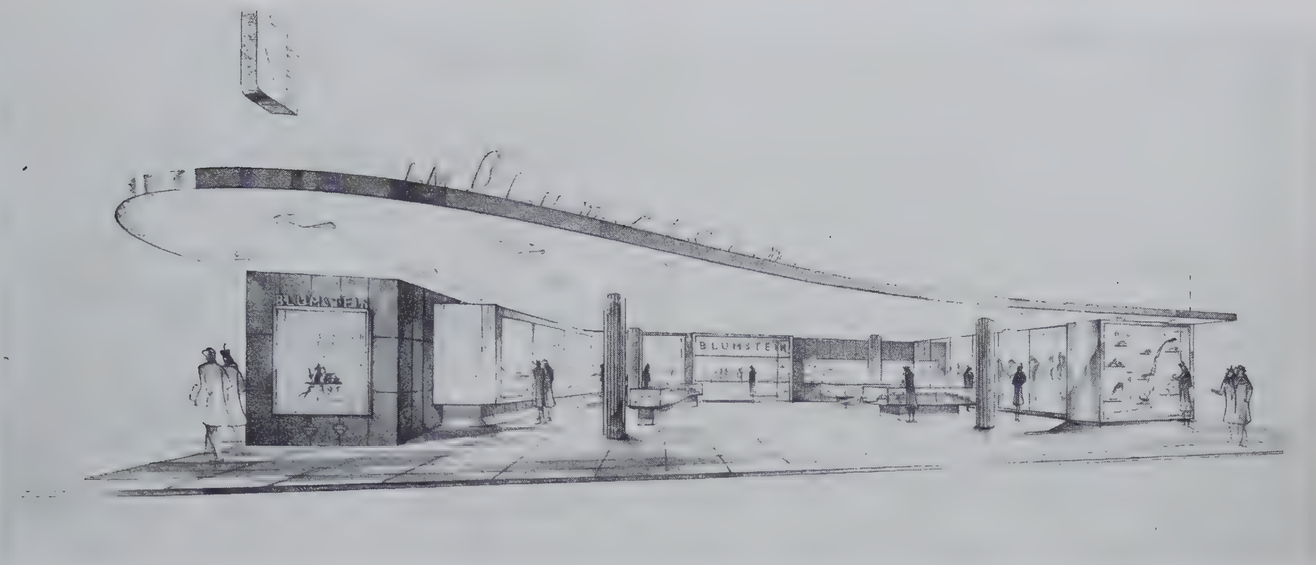




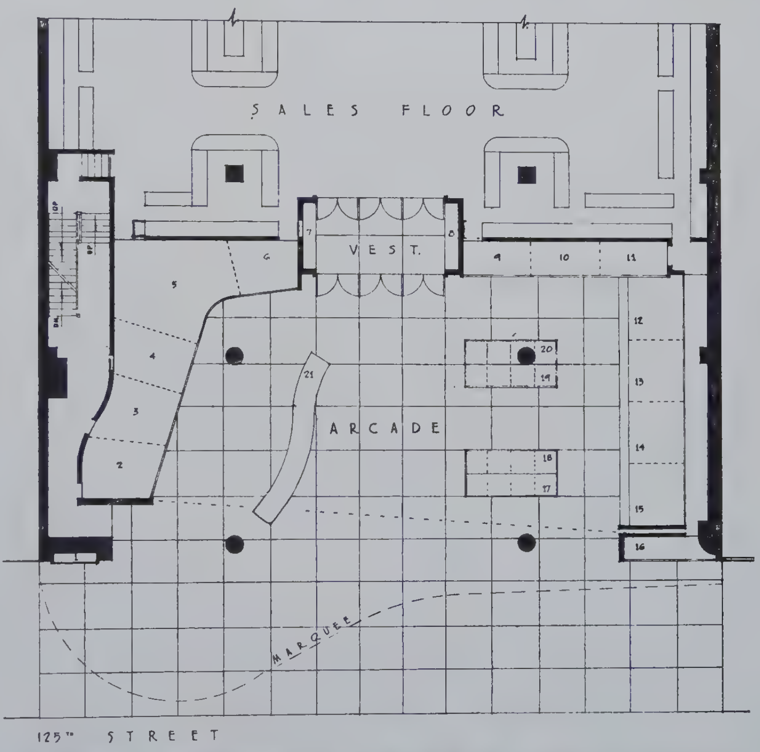


CITY OF NEW YORK . . . DEPT. OF PARKS

AYMAR EMBURY, II . . . *Architect*



DEPARTMENT STORE FAÇADE DESIGNED BY MORRIS KETCHUM, JR., ARCHITECT, OF NEW YORK, FOR AN 87-FOOT FRONT ON 125TH STREET IS SHOWN ABOVE, RENDERED BY ALBERT LOECHER, IN CONTRAST TO THE EARLIER FRONT OF THE STORE (BELOW). THE ARCHITECT'S PLAN (RIGHT) SHOWS HOW KETCHUM SOLVED THE PROBLEM OF PROVIDING A COMFORTABLE, SHELTERED, WINDOW-SHOPPING AREA WITH SPACE FOR THE WARES OF TWENTY DEPARTMENTS TO BE DISPLAYED. THE STREET IS CROWDED DAY AND NIGHT AND THE STORE EXPECTS MUCH OF WINDOW DISPLAY. WALL CASES ON THE LEFT OF THE ENTRANCE ARE FOR HOUSEHOLD ARTICLES, CLOTHING BEING DISPLAYED ON THE RIGHT, AND SMALLER ARTICLES IN THE SHATTER-PROOF GLASS FLOOR CASES BETWEEN THE ALUMINUM FACED COLUMNS. ALL METAL-WORK IS ALUMILITED ALUMINUM; WALLS ARE OF DULL-FINISH BLACK STRUCTURAL GLASS; THE MARQUEE IS PORTLAND CEMENT STUCCO; AND FLOOR IS DULL RED CEMENT, FROM THE CURB



REMODELED STOREFRONT — MORRIS KETCHUM, JR., ARCHITECT

TECHNICAL PROFESSIONS PREPARE IN BOSTON

REPORT OF COMMITTEE FOR CIVILIAN DEFENSE

The Committee appointed by the Boston Society of Architects, acting under The American Institute of Architects, for Emergency Defense preparation has broadened the scope of its work and is functioning as a Committee of Architects, Engineers, and Planners, for Civilian Defense. From contact which has been made with non-military and military sources, both local and in Washington, the Committee has been assured:

(1) That the professional and technical skills which it can contribute and use for building up civilian defense is needed and will form a worthy contribution.

(2) That such work by us is most welcome, and is a type of pioneering, which it is hoped will spread and will be taken up by other similar organizations in other States.

With the continued study of our problems, we are again impressed by the amount of technical knowledge which is necessary in order to solve the problems of civilian safety and adequate living because of world conditions today. The success or failure of civilian safety will depend upon the adequacy and efficiency of the scientific and technical approach. Our work, which will function with a personnel of Architects, Engineers, and Planners, is peculiarly constituted to help in an effective way because of the technical skill and experience of its type of personnel.

The carrying out of any defense problem will involve appropriations, and the expenditure of sums of money, probably the greatest in history. As far as possible, it would seem reasonable that, because of this, there should be a guarantee to the people of the United States that the greatest social and economic values from the moneys appropriated and expended for defense planning should be realized by the citizens, not only right now, but also in the future, through this spending under technical advice, which can help to bring about a better planned economic structure of society. The spending of money now, on hurried, ill-considered, and incomplete projects, is to be deplored both for the losses sustained in the present, and harmful future effects.

There are two phases to our work which we wish to stress: The first is the area to be covered.

In Massachusetts we are organizing by dividing the State into districts in order to cover the entire State. Beyond Massachusetts, we are also organizing the other States in New England. The area of the effects of war has become greatly enlarged in this war, compared with the previous war. In the previous war the areas most gravely affected were those where the armies were in combat. At present, with the aeroplane and the means of waging war by it, all areas are affected and those where civilians are and not the army, are liable to be the most affected.

The second is its usefulness during times of peace as well as war:

A great many of the elements of the work of our Committee are both vital and useful under conditions other than war. A large part of the work as organized will be equally beneficial to create better planned cities and towns, better organized facilities to meet emergency conditions such as the hurricane, and otherwise function to improve conditions under peace time operation. Therefore, the usefulness of our contribution is not dependent upon the eventuality of war by invasion. If, however, war does come, the items which deal with civil morale are as important as the military preparations.

DETAILED PROGRAM OF COMMITTEE ACTIVITIES

The work of the Committee, for its proper functioning, has been analyzed and broken down into eight main divisions. These vary somewhat from those given in our last report. The divisions of work are under sub-committees, headed by chairmen, and are as follows:

I. PROTECTION

This will cover a large field, including both civilian and building protection. The work is at present following these general sub-divisions:

A. *Classification of Existing Structures*

1. *Kinds*
   - a. Household
   - b. Schools and Colleges
   - c. Commercial and Business
   - d. Industrial
   - e. Institutions
   - f. Community
2. *Use*
   - a. Through safety against high explosives
   - b. Through safety against gas
   - c. Through safety from fire under bombing, or general conflagration
3. *Survey*
   - a. Safety value of existing construction
   - b. Safety value through altered construction
   - c. Hazardous for use
   - d. Dangerous for use and should be removed

B. *New Type of Structures for Special Use*

1. Survey of such structures as used in Europe
2. Consultation with Government and other authorities on such structures
3. Report on desirable locations for placing such structures
4. Consulting on their planning and design
5. *Kinds*
   - a. Casualty stations
   - b. Additional fire fighting stations
   - c. Canteens
   - d. Shelters
   - e. Other structures for protection

C. *Preparation of Map Data*

1. Collecting of available maps for use
2. Consultation with Government and Local authorities as to conditions affecting map work
3. Classification as to map data with common symbols
4. Preparation of maps as directed, and drawn at a common scale agreed upon

D. *Preservation of Historic Buildings, Art Treasures, and Records*

1. Consultation with authorities as to work undertaken
2. Survey of conditions
3. Preparation of design and data for protection of buildings
4. Reports on suitability of temporary or reused structures for records and documents

II. CAMOUFLAGE

A. *By Concealment*

1. *By Massing*
   - a. By study of shapes and avoiding symmetry
   - b. By placing masses to take advantage of ground contours
2. *By Planting*
   - a. Natural plant forms
   - b. Use of plant forms through design and landscape architectural treatment

B. *By Confusion*

1. By actual change of form
2. By changing of the apparent form of objects
3. By imitation or repetition, destroying the value of single conspicuous objects

C. *Lighting*

1. *Absence of lighting*
   - a. Blackouts for the entire community
   - b. Blackouts for special areas
2. *Glare by lighting*
   - a. For reservoirs, or groups of buildings
   - b. For communities, by encompassing areas greater than the size of the community, allowing a different shaped area under glare each night, protecting the community, and obliterating vital objectives
   - c. Special forms of lighting

D. *Paint*

1. Survey of paints now in use
2. Research concerning new paints
3. Color
4. Combination of use of color and form through painting
5. Color and chemical value

E. *Coverings*

1. Use of colored coverings over roads and other objectives
2. Use of sodding and other coverings on roofs
3. Covering of landscape with decoys, to make objective areas appear like pastures, graveyards, or similar units

III. CONSTRUCTION METHODS, CONTRACTORS, AND LABOR

A. *Construction Methods*

1. *Use of new materials*
   - a. For more permanent construction
   - b. For greater safety
   - c. For economical construction, to prevent shortages of the more commonly used materials

2. *Consultation*
   a. With Government and military authorities
   b. With other sub-committees on structural problems
   c. Reports on special construction problems

B. *Contractors*

1. *Consultation and Services*
   a. Inspection of damage to buildings
   b. Debris cleaning
   c. Assessment of damage to buildings
   d. New and alteration work with reference to structures

C. *Labor*

1. Consultation with representatives of labor
2. Research concerning labor problems
3. Cooperation with labor on projects

D. *Special Construction Problems*

1. On Government work
2. On Military work
3. On special structures such as historical buildings
4. On structures involving rehabilitation construction

IV. HOUSING

A. *Survey and Fact Finding*

1. Population densities
2. Distribution of industries to housing, and housing to industries
3. Communications
4. Topographical Characteristics
5. Food and Sanitary Services
6. Type of Structures

B. *Evacuation*

1. Survey of existing housing in other than the evacuated centers
2. Survey of existing private or community buildings for temporary use under conditions of emergency evacuation

C. *Designing and Planning*

1. Alterations
2. Additions
3. *New work with reference to*
   a. Houses
   b. Schools and Hospitals
   c. Recreational Buildings
   d. Supply buildings and warehouses
   e. Special use buildings under war conditions, such as training centers and barracks

D. *Government relations*

1. With reference to existing housing
2. *With reference to new housing*
   a. Consultation on local conditions and needs
   b. Appointment of Private Architects, Landscape Architects, and Engineers
   c. Reports on solution of the housing problem
   d. Consultation with other local authorities or units on housing

V. INFORMATION AND SURVEY

A. *Personnel Forces*

1. Architects, Landscape Architects, and Engineers
2. Contractors
3. Labor

B. *Building Materials*

1. Supply firms and data as to the materials handled

C. *Government work*

1. Information as to the work being contemplated or authorized or undertaken by Washington, or local Government groups
   a. Correlation of this data
   b. Reporting it to interested sources

D. *Fact Finding*

1. *Defense and Civilian Safety*
   a. On results in Europe from similar technical organizations
   b. On results made available by Washington
   c. From local sources

E. *Bibliography*

1. *Consulting local libraries*
   a. City
   b. College
2. Creating a bibliography on defense problems and making it available to all subcommittees
3. Acquisition of pamphlets and other data for the use of subcommittees in their work

F. *New Work*

1. Government
2. *Private*
   a. Recommendation as to available, competent firms
   b. Assistance in obtaining the employment of Architects, Engineers, and Planners for the projects

VI. PLANNING, ZONING, AND REHABILITATION

A. *Town Planning*

1. Relative to new industries
2. Relative to existing industries
3. Relative to community life
   a. For present conditions
   b. For rehabilitation work under wartime conditions

B. *Zoning*

1. *For safety*
   a. Removal of hazardous structures
   b. Formulating requirements for necessary building clearance in cities and towns
   c. Workmanship on areas such as reservoirs and power houses, concentration of oil tanks, etc., relative to better planning

C. *Building Code Changes*

1. *In cities and towns*
   a. For better planning and appearance
   b. For structural safety

D. *Rehabilitation*

1. Collaboration with Federal, State, and Municipal Authorities
2. *Data on rehabilitation processes*
    - a. For city and town planning
    - b. For divisional layouts
    - c. For buildings

VII. PUBLIC RELATIONS AND COORDINATION

A. *Publicity*

1. Compilation of data
2. *Dissemination of data*
    - a. Public Speaking
    - b. Newspapers
    - c. Magazines

B. *Education*

1. Through Publications
2. Through Maps
3. Through Plans and Illustrations
4. *Through Personal Contact*
    - a. To promote public awareness as to the problem of protective planning
    - b. To inform the public as to better self-protection
    - c. To cooperate with community leaders

C. *Coordination*

1. Between the Committee and the general public
2. Between the various sub-committees

VIII. ORGANIZATION AND WAYS AND MEANS

A. *Organization*

1. Research and Survey
2. *Preparation of Data*
    - a. Organization objectives
    - b. Charts

B. *Consultation*

1. With Committee Chairmen
2. With State and Regional Organization

C. *Ways and Means*

1. *For carrying on work*
    - a. Within the organization of Architects, Landscape Architects, and Engineers
    - b. Outside the organization, through State or Regional assistance
2. For better organization of the various agencies to achieve the objects of the committee

For further information as to the progress of the Committee work, the following comments are added:

1. *Protection*

Mr. William Roger Greeley, Chairman of the sub-committee, has made the following report.

"From a map given to us by the military authorities, we have studied those areas of military importance. In each area we have tried to contact an architect or group of architects interested in beginning a fact-finding survey, upon which to base our work.

"In general we have received enthusiastic cooperation, and already a survey of Pittsfield is complete.

"In Boston a test survey by the students of the Harvard Architectural School has been started in the Charlestown area, and should be completed in a few days. From this survey we hope to establish a method of procedure applicable to other areas.

"It is encouraging to note the interest in this work. Several organizations other than the architectural profession have enquired concerning the work, and have volunteered their services. A volunteer secretary has made it possible to keep in touch with all local groups, and questions and suggestions have been exchanged.

"The coming week will find the survey of greater Boston under way. From this information, the data which we are accumulating will be the basis of our study of the various aspects of civilian shelters."

2. *Camouflage*

The sub-committee on Camouflage is headed by Mr. Marc Peter, Jr. It is considered that Camouflage is an extremely important item in the safety program, and calls for research and study of methods which have been used in Europe in the present war, and for the creation by us of new and effective methods.

3. *Construction Methods, Contractors and Labor*

This sub-committee will thoroughly consider the construction field, and will be available to consult and assist with construction problems.

4. *Housing*

The sub-committee on Housing will probably be headed by Mr. Joseph D. Leland. It particularly interests itself in the study of population groups and their use of shelters. It will endeavor to interest Federal, Regional, State, and Local groups as to the desirability of employing Architects, Landscape Architects, and Engineers for this work. Another study will be the effect of economy and Government Housing, versus private enterprise and local communities. They will primarily seek to develop the community toward more healthful and economical living.

5. *Information and Survey*

The committee on information and survey is headed by Mr. Felix Burton. This committee will play a very useful part in the proper operation of the other sub-committees. Already the Librarian of the Massachusetts Institute of Technology has started the formation of a small library containing bibliography pertaining to our work. This committee will keep in close touch with such movements.

6. *City and Town Planning, Zoning and Rehabilitation*

This Committee will work on rezoning, on building conditions, and on layout planning, both from the standpoint of architecture and landscape architecture. The whole field of city planning, taking into consideration the roads and routes between cities as well as the problem of rehabilitation in all its phases, will be considered by this sub-committee.

7. *Public Relations and Coordination*

This committee will specifically handle the problems of Publicity, Education, and Coordination between the sub-committees. Much of the success of the other sub-committees will depend on this Committee's work.

8. *Organization and Ways and Means*

This sub-committee, of Organization and Ways and Means, is headed by Mr. Walter Campbell, and will concern itself particularly with the study and analysis of the various detailed functions of the other sub-committees, and as to how best we may divide work and have the sub-committees function as part of a whole, reporting back to the Executive Committee. Assistance on charts has already been given by this sub-committee toward the organization of the State Defense work and the set-up of the Public Safety Division of the State of Massachusetts. Charts have also been prepared on the organization of our committee and of its sub-committees and aims.

The Ways and Means of carrying on this work and of relating it to the proper State and Government Officials will also be a part of the work of this committee. This is also receiving consideration, along with the detailed efforts such contact requires.

The report of the functions of the above eight sub-committees, which is now carrying on or will carry on, as the case may be, gives a brief résumé as to how the work of the committee is covered. Such a set-up is functioning as a whole and we feel sure will bring effective results.

In order better to carry on this work in the State of Massachusetts, we have sub-divided the State into districts, with Architects in each one of these districts to head up the work. The districts into which Massachusetts has been divided at present are those surrounding these cities:

Greenfield
Springfield
Worcester
Lawrence
Lowell
New Bedford
Fall River
Boston

In our last report it was stated that arrangements were being formulated for our representation on the Defense Committee of Massachusetts, as appointed by the Governor of Massachusetts. We would then function as part of the State Committee as an Executive or Division Committee of Architects, Engineers, and Planners for Civilian Defense. This set-up is already in the hands of Mr. Channing Cox, the Chairman of the State Committee, and will be placed before his Executive Committee within a few days, for confirmation.

Our executive committee, in addition to the members previously appointed from the Boston Society of Architects, has been enlarged to include also in its membership a Landscape Architect, Town Planner, a Civil Engineer, and a Mechanical Engineer. A District Committee has also been formed, made up of members from district cities as listed.

The personnel of the Committee presented to Mr. Channing Cox, Chairman of the Defense Committee of Massachusetts, is as follows:

Chester Lindsay Churchill, Chairman; *William Emerson; H. Daland Chandler; Walter Campbell; William Roger Greeley; Marc Peter, Jr.; John T. Whitmore; E. C. Whiting*, Landscape Architect; *Frederick J. Adams*, Town Planner; *Carroll A. Farwell*, Vice President of the N. E. Section of A.S.C.E.; *Holcombe J. Brown*, President of Engineering Societies of N. E.

District Members as follows: *John F. Alter*, Lawrence; *James A. Britton*, Greenfield; *Carroll Coletti*, Boston; *Wallace E. Dibble*, Springfield; *Samuel T. Dubitsky*, Fall River; *Adolph Johnson*, Worcester; *Henry L. Rourke*, Lowell; *William Tallman*, New Bedford.

Since the last report, the Chairman of your Committee has visited the Maine Chapter of the A.I.A. at Portland, on November 14, 1940. The work of your committee was explained and also the organization and its relation to the State of Massachusetts. Previous preliminary work had been done through the efforts of the Regional Director, Mr. H. Daland Chandler. At our meeting, however, a committee was formed, headed by Mr. John Howard Stevens, and work is going forward on the basis of our organization and objectives.

On October 23, 1940, your Chairman met with the Connecticut Architect's Committee on Defense and attended with them a conference at the State House in Hartford, with General Wadhams, Chairman of the Governor's Joint Executive Committee on Defense. There was a discussion in great detail, of a program of activities, largely following those as outlined in our first report, and General Wadhams expressed his hearty accord with the movement. The Connecticut Committee, organized along the lines of our Committee, through the Regional Director, Mr. H. Daland Chandler, is now functioning and is the most active of any State Committee outside of our own.

Both these Committees for the States of Connecticut and Maine have been organized by us and it is the intention that the States of New Hampshire and Rhode Island shall be similarly organized, forming the nucleus for a New England Regional Committee. Vermont will be covered by our Committee.

Work has already been started with reference to assisting the organization of the Rhode Island Chapter.

In addition to activities within New England as reported, the Philadelphia and New York Chapters have become interested. They have conferred with us and have received data on what we are doing, and are considering the matter of civilian defense, although along lines which may differ from ours as to organization.

With this organization as reported, and with other provisional groups, plus the obtaining by us of an official status as part of the State organization, we shall be in a position to further speed our progress. This progress, we feel, is a great necessity, as it is a fact that the country is already arming for defense. Concurrent with this arming for defense, is a dire need for the scientific and technical solution of the problems of civilian safety and defense which are confronting the whole people of this country, and it is immeasurably important. The Architects, Engineers, and Planners have established that they can make a vital contribution along these lines —a contribution, we again stress, which will help solve defense problems through an intelligently planned, long term program working toward the social betterment of the people of this country, and which will also aid the defense problem effectively and efficiently if the unhappy contingency of war does come.

We are looking forward to being able to report further progress along these lines in the near future.

Respectfully submitted,
CHESTER LINDSAY CHURCHILL
Chairman

SLOW PROGRESS IN HOUSING FOR SHIPYARD WORKERS

ALAN MATHER REPORTS ON FIVE EASTERN SITES

In the magazine talk of work which architects can do for national defense there is a concentration upon the "Buck Rogers" elements of warfare. Camouflage, air raid shelters, wire mesh nets for protection against falling glass, blinds for total blackout are crashing into the architectural press. These things like the capes and planet disintegrator of the hero of the funny papers are BIG, they are important—they have their place—particularly in those magazines interested in popular mechanics. But they *should not* have space to the exclusion of the less dramatic and perhaps more effective considerations related to city and regional planning. It is work in these fields which will help to *localize* air raid damage.

What is required to localize damage was pointed out recently by Ralph Ingersoll, editor of PM, a New York newspaper. He said: "To my own knowledge, the British have dispersed their industrial production lines with amazing efficiency and success . . . An airplane in England is no longer made in one factory. A carburetor is made here, a tail wheel there, wings some other place. Not only that, but instead of having one carburetor factory, the production of carburetors is broken up between two or more factories. Ditto tail wheels, ditto wings, etc. So that the *total* destruction of no one factory can stop the production of an airplane." In shipbuilding also, dispersal is praticable. It could be effected in the United States by taking all operations except final assembly from the shipyards and placing them inland (as has been done for submarine construction in Germany). Creation of new yards along the Southeast and West Coasts with consequent reduction of the relative importance of the Northeast yards is another step in that direction.

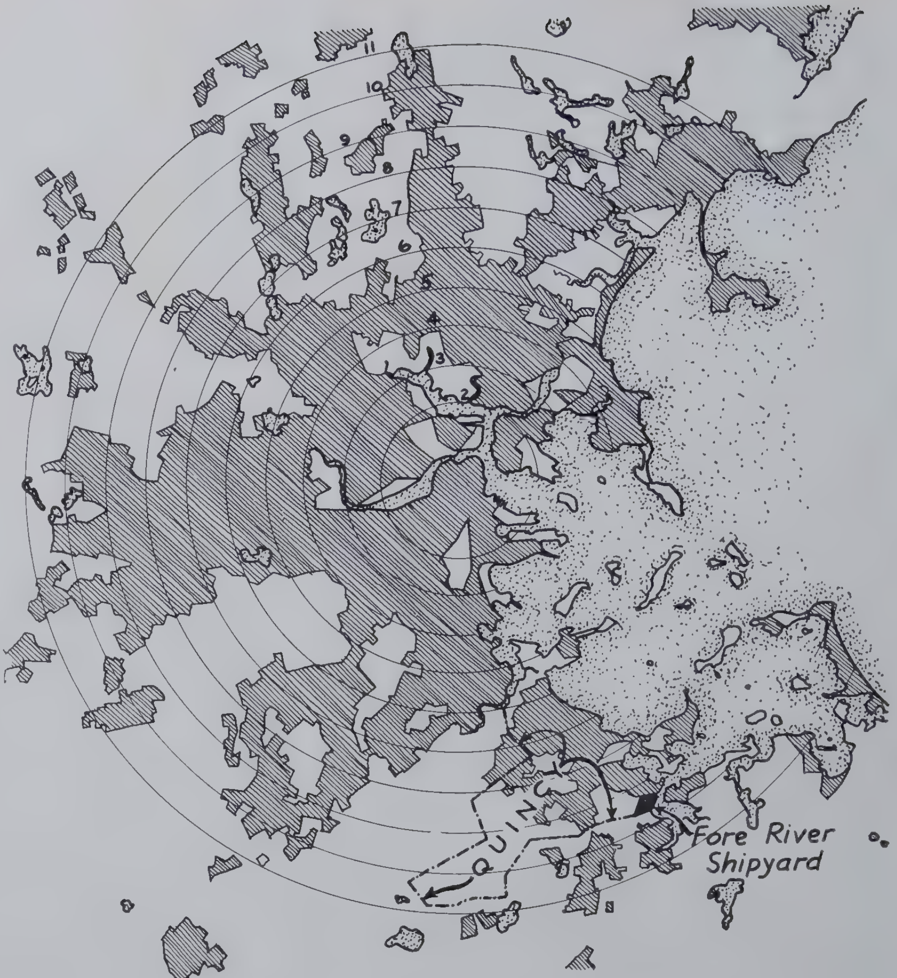
These are general considerations against which the following local observations should be projected. Any thought on decentralization, to be effective, should avoid Broadacre-Garden City visions and get down to detailed observation of local groups which ally themselves with central financial interests to oppose decentralization.

QUINCY, MASS.

The greatest hurt to the largest aggregate of people with the finest economy of bombs seems to have been the purpose behind the blasting of the East end of London. The possibility—distant as it may be—that areas of concentration here may be bombed on the same principle should be kept in mind when picking sites for new housing. Certainly when a group of industries moves from the center of a metropolis to its suburbs, there should be an effort made to locate *some* low-density housing for it nearby. Socially and strategically — could there be anything worse than to build a new housing project for such a group back in the city center from which it had removed? Yet, it is this worst of ideas which is being put into practice in Quincy. There, the Fore River shipyard, nine miles from the State House, is to have housing for some of its employees built in the southern part of Boston.

Why is this happening? I interviewed a number of people up there and got the answer to that one. A Mr. Edwin J. MacEwan, Secretary of "The Quincy Defense Council"—and of the Quincy Chamber of Commerce—plus some bank and savings and loan association representatives, stated flatly that Federally-sponsored low-rent housing was neither needed nor wanted in Quincy. This they said, and loudly, and with abuse of all opponents, at a hearing in the town hall and at an interview with Defense Housing Coordinator Palmer in Washington. The Quincy

Citizens' Public Housing Committee representing civic and improvement associations and labor unions stated that there *was* a need for this kind of housing and asked for a Housing Authority in Quincy. Both groups were earnestly listened to and a judgment of Solomon was handed down. Whereas, there is a shortage of housing at rents which defense workers can afford to pay; whereas, this shortage ranges anywhere from 500 to 2,000 dwellings; therefore it is recommended that private enterprise be assigned the task of providing 1,000 dwelling units, and, that the provision of 1,000 dwellings to rent for $20 to $30 per month be assigned to the Federal Works Administration *in conjunction with the Boston Housing Authority*—that is the Housing Coordinator's decision. In a magazine devoted to the finer things of life, it is perhaps a little out of place to discuss the Automat. But that decision is like going into an Automat where you can't see into the food compartments. You put nickels into the one marked *Swiss Cheese Sandwich,* the door springs open, and you get a bowl of *Boston Baked Beans.*



Map of Boston with shading to show settled areas within the Metropolitan District. Radii of circles measured in miles from the Massachusetts State House at the center of the city. Proposed housing several miles from shipyard

There being no Real Property Inventory in Quincy, I cannot point to any official statement of conditions there. At the Mayor's office I asked for the name and address of the Chairman of the committee of the City Council which had made an investigation. I was referred to Mr. MacEwan. Mr. MacEwan, the Secretary of the Chamber of Commerce, is not the Chairman of the City Council committee, but I did as was suggested — hunted for him at the Court House. The search for him there being fruitless, I went to the Chamber of Commerce. I did not find Mr. MacEwan there but I got the C. of C. reports. These say that there are plenty of existing houses and apartments for rent in Boston, Brockton, Hull, etc. 350 in Quincy. Nothing was said about rents in the reports, so when I dropped in at a bus terminal to get a route map I asked some assembled bus drivers about those. Three out of seven of these drivers, Quincy residents, had had their rents raised five dollars in recent months. With proper oratorical gestures I said something like this, "Private capital has served adequately our community over the past few years and is amply equipped to serve it in the future. Any forced production of additional housing will drive away private capital and seriously injure not only our community but the defense program in our area." One of the drivers looked at me suspiciously and asked, "Are you from the government?" When I assured him that I was not, they all burst into a torrent of abuse against the real estate interests in the town.

BOSTON

At the office of the State Planning Board in the State House an old man said to me: "It's discouraging—you offer to do something—make a survey, take an inventory, but people say, 'The War Department has done that' or 'A Chamber of Commerce has done that.' Then when you go to look for what they have done and you find nothing at all or something incomplete." It seemed to check with what I had seen in Quincy.

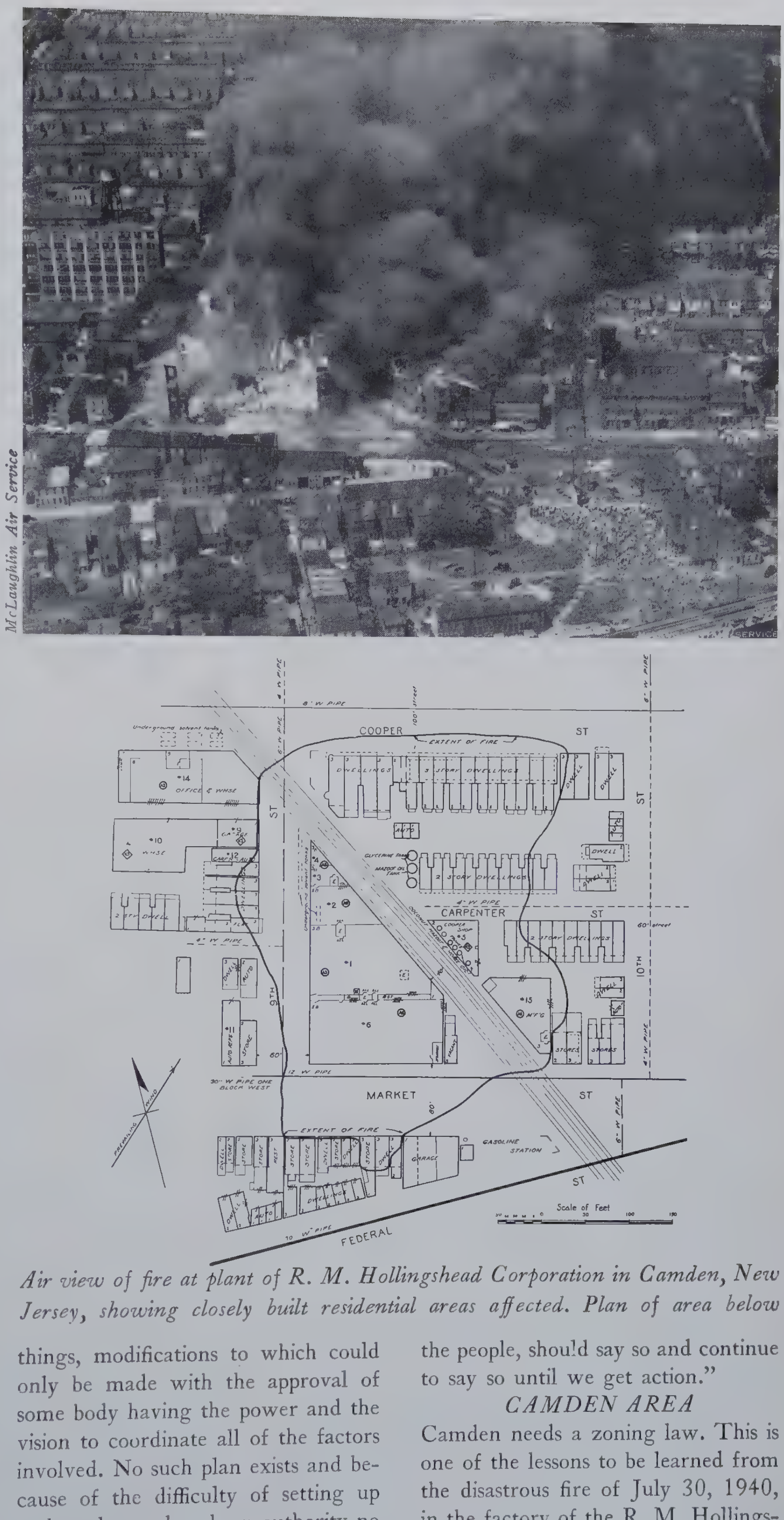
Boston and Massachusetts are well supplied with planning agencies, many of them doing an excellent job. The City Planning Board with WPA help is making a survey to determine how far actual use of properties has filled up the space allotted to them in 1924 when the city's zoning law was passed: it is thought that the areas reserved for industry represent the too optimistic ideas of expansion of the 'twenties. It is also making a Rehabilitation Survey to find out how much old housing is fit for renovation. The State Planning Board has proposed to take an inventory of available housing within a ten-mile radius of Quincy, Springfield, Worcester, Camp Edwards, Fort Devens, and Lynn. Architects from the local A.I.A. Chapter have made a thorough outline of the work they can undertake as a subcommittee of the Governor's Public Safety Committee. I enquired about the Status of all this survey work for it seems to be in line with the recommendations of the Twentieth Century Fund in its report on *Housing for Defense.*

People and agencies are ready to do this necessary work but they are being kicked in the face by gentlemen like Mr. MacEwan. This is the fact. The sooner it is faced, the better for national defense.

PHILADELPHIA

Because of the lack of street signs there, I have had difficulties in finding my way in Philadelphia. But there is a trust company on every corner. So when I look up an address in the 'phone book, the print calls up in my mind a picture of the A, B, and C, or X, Y, and Z trust companies and then I know just where to go. Of course when I want to know the locale of some slum address I go to the National Republican Club on Broad Street. There an intense interest in the whereabouts of the common people, a recent development, proves most helpful. Philadelphia is just one big village again, I find.

But the business of establishing a proper location for schools, hospitals, and housing projects does not seem to allow such easy, gracious, and good-natured adjustments. At a meeting on December 10, sponsored by housing and labor organizations, and the Committee for Defense of the Philadelphia Chapter of the A.I.A., *Pope Barney,* local architect said: "There is no City Planning Commission with power, authority, and effective voice. This is one of the things which the City's charter would have set right and the adoption of the City charter is one of the things which we as advocates of housing for the general good of the city should support. Housing sites as we all know or readily agree should be properly related to transportation both now and in the future, to schools, stores, recreation, churches, and public services of police, fire, sanitation, water, electricity, etc. They must also be related to the industrial areas both now and in the future. This certainly presupposes the existence of some coherent city plan showing all of these things, modifications to which could only be made with the approval of some body having the power and the vision to coordinate all of the factors involved. No such plan exists and because of the difficulty of setting up such a plan and such an authority no steps are being taken to do so. As it is, the various departments of the City and the City Council constitute at present the only effective plan and the only effective city planning commission and if we do not like it we, the people, should say so and continue to say so until we get action."



Air view of fire at plant of R. M. Hollingshead Corporation in Camden, New Jersey, showing closely built residential areas affected. Plan of area below

CAMDEN AREA

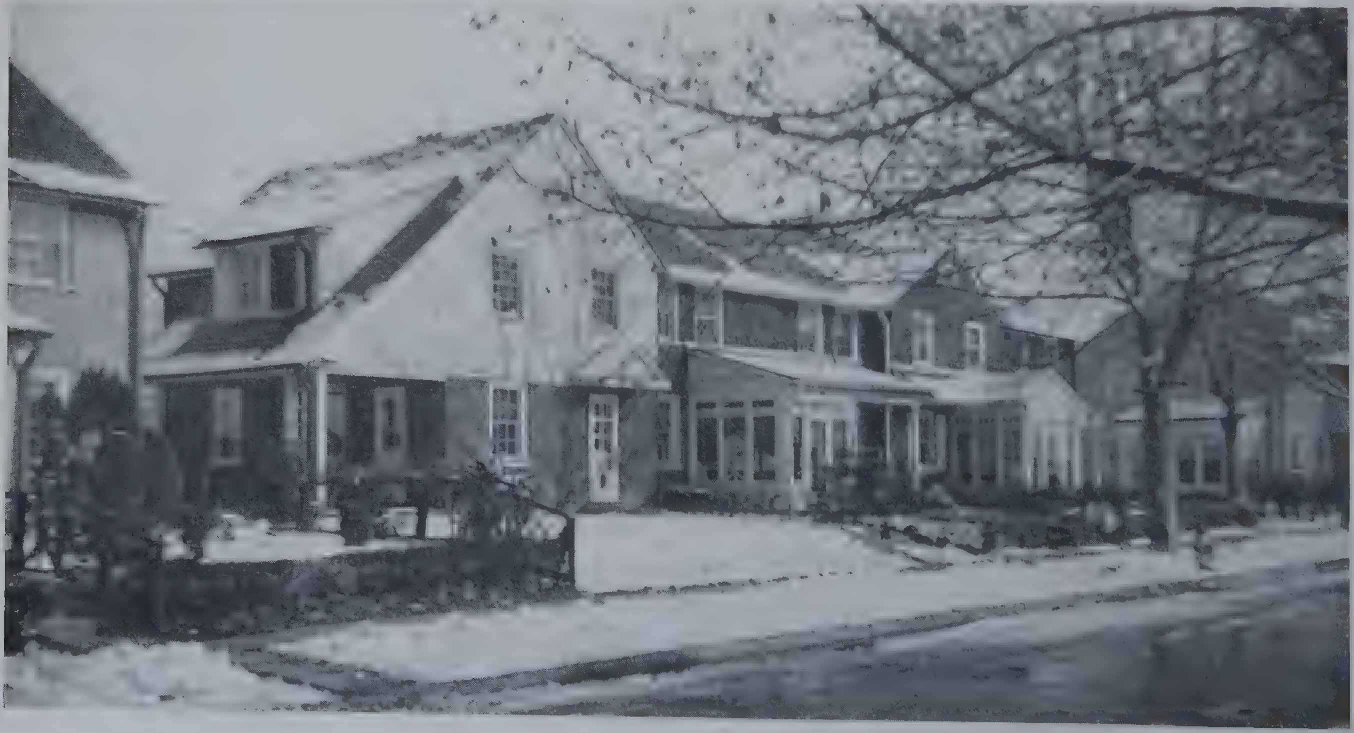
Camden needs a zoning law. This is one of the lessons to be learned from the disastrous fire of July 30, 1940, in the factory of the R. M. Hollingshead Corporation. Defense planning, too, requires zoning to segregate residential neighborhoods from factories like this which are likely to become targets. Segregation, when combined with dispersal, is the best preventive medicine against air raids. The Hollingshead plant, in which inflammable liquids were used, stood in the midst of a densely populated area. One of its glycerine tanks stood at the side of a house. Obviously, in wartime, an aviator would drop one bomb on such a plant and let its explosive contents do the damage to the surroundings. The hint behind this disaster should be heeded now. That is, we should not wait until enemy airplanes are overhead before learning of all the disadvantages of unzoned communities. Of course this consideration requires zoning laws which work two ways, *viz.* to exclude houses from factory districts as well as to keep factories out of residence districts. At present most laws act only in the latter direction.

Recently, a writer in the real estate section of the *Philadelphia Record* commented that public and private housing in neighboring Camden seemed to be shooting ahead of what Philadelphia is doing. He's right, and he probably knows why. The City Council of "Trustville-on-the-Delaware" has fought public housing with everything in the armory. Now, not only housing but commerce is going across the river. In Camden, the shipbuilders' union has fought for private housing, public housing, any old housing just so long as it might provide enough roofs to prevent rent gouging by real estate interests. At last they have got results. Groundbreaking for a five-hundred unit development near the New York Shipbuilding Corporation's yard is in sight. After having served for some time as technical advisors to the Camden local of the shipbuilders' union, *Joseph Hettel* and *Oscar Stonorov* were appointed architects. Another occurrence which forecasts increasing advantages of the Camden area over Philadelphia is the inauguration of a ferry service between the Philadelphia Navy Yard and National Park, N. J. Months ago, the Commandant of the Naval District asked "Trustville's" city council to cooperate in providing 1,000 houses for new workers at the yard. There being no response, the yard has pressed an old barge into service in order to ferry some of its employees across the river where they have been able to find homes. Incidentally, this expedient may suggest that the use of the Jersey shore as a permanent suburb of the Navy Yard instead of southern Philadelphia is, after all, sound policy. Certainly, any area around the collection of oil refineries and gas plants near the oily mouth of the Schuylkill River is no fit place for housing. In winter the wind blows the fumes away from the territory—but when summer comes, the less said the better. So the Navy should get a substantial ferry boat and help to develop that National Park section in New Jersey. They had better buy some of that land cheaply before the real estate boys get wise in a wholesale way.

CHESTER, PA.

The people whom any housing emergency in Chester will afflict most severely are the negroes—and there will be plenty of emergency. Chester is like those visions of an ideal ribbon town. There are the industries strung along the river, then, inland come the railroad lines and the commercial districts and then, the residential areas in a ribbon stretched along the high ground. From the points of view of rail and water service to the factories and of reducing travel time from home to workplace, the ribbon arrangement is good. But the ideal vision ends there. Without legislation to limit overcrowding, the influx of Sun Shipbuilding Company workers into the ribbon will squeeze the lowest income people—which means negroes—even

Street front of Buckman Village houses. Wood-brick combination alternates with stucco for variety. Alley side shown opposite has noteworthy architectural quality. Project built by Emergency Fleet Corporation in 1917-18 for Chester, Pa., shipyard workers. G. E. Brumbaugh and Simon & Bassett, Architects



Old houses for workmen near shipyards at Chester have a dreary character

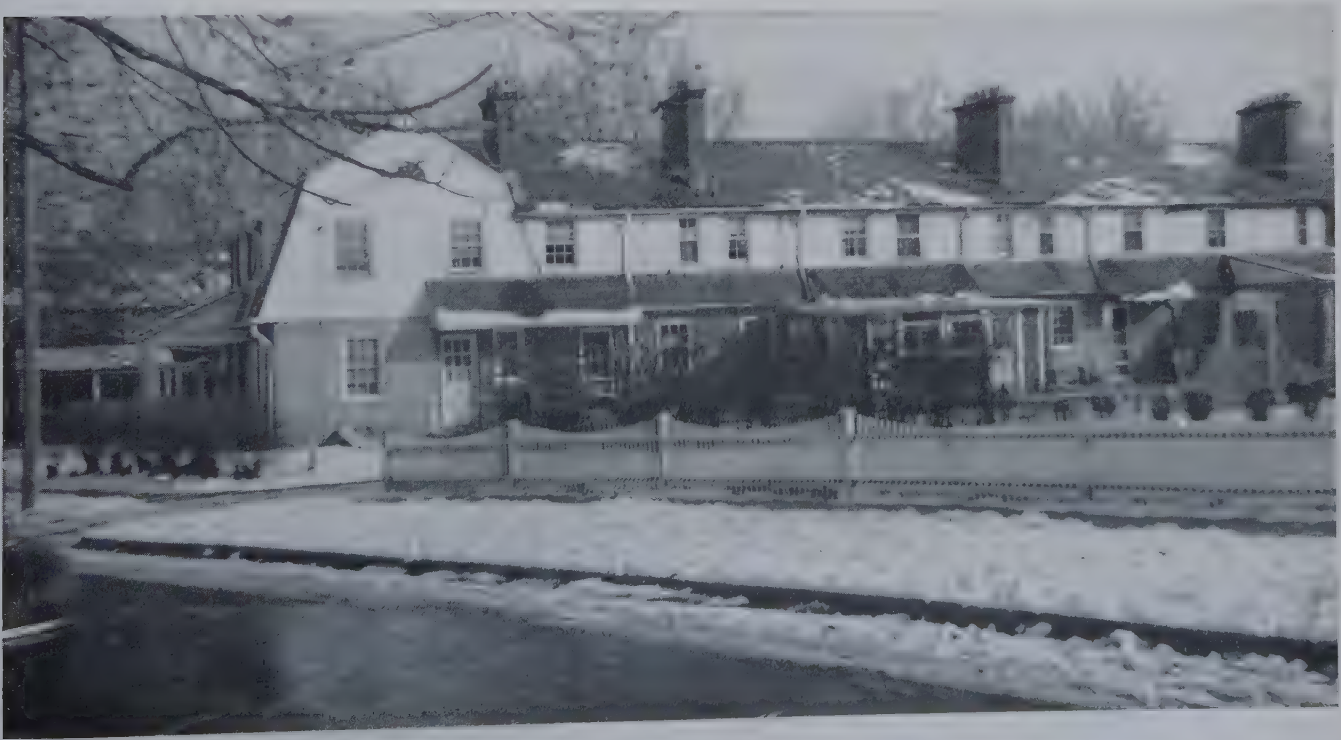
harder than they are being squeezed now. In Chester they are concentrated in the 5th Ward at the rate of 77 persons per acre. The density for the remainder of the city averages 25 persons per acre. It must be admitted that a small decentralized town such as Chester lacks the general fund of housing which, in metropolitan centers, permits adjustments as factories here and there increase or reduce their working force. Statewide legal action to relieve the pressure on the economically weakest group is the only way to correct this defect of the small decentralized town. In this connection Mr. John R. Helms, Technical Advisor of the Chester Housing Authority writes me: "Legislation, relative to overcrowding similar to the English and Dutch regulations would be of great value in correcting conditions of overcrowding in industrial centers, and I would suggest that recommendations be made that such legislation be enacted in New York, Pennsylvania, New Jersey, and other population centers."

TREND TO SUBURBS

It is commonly argued that housing built near defense industry plants far from an urban center will be left behind as "ghost towns" when the emergency is passed. That may be true of places truly isolated. But from what I saw of housing projects built during the last war—"Fairview" in Camden, Buckman Village in Chester, an Emergency Fleet Corporation community in Quincy, all of them well removed from the center of things—talk of ghost towns comes from people in editorial offices gifted with obedience and strong imaginations. Let them produce a lot of U. S. Housing Corporation or Emergency Fleet Corporation ghost towns and I will eat a *New York Times* editorial and die of ptomaine poisoning.

What happened after the last war is illustrated by statistics for Quincy, Mass. During the war years the number of wage earners there hit an all-time high. Then there was a decline from 12.6 thousand in 1919 to 4.8 thousand in 1929. Yet population kept going up from 40.6 thousand in 1915, 47.8 thousand in 1920, and 76.9 thousand in 1935. In short, the growth of Quincy as a suburb offset its sudden eclipse as a shipbuilding center. Colonial type single-family houses of good suburban standard were vacated by the shipbuilders and soon occupied by the new suburbanites. I walked through the village there built by the Emergency Fleet Corporation and saw but one house for rent, none for sale. The same is true for Buckman Village and Fairview.

You say that statistics show that population growth is leveling off, that therefore the suburban trek won't continue and that therefore housing built in decentralized pattern will be deserted after the war has begun and ended? Listen buddy, do you see that line of couples at city hall? As ever, in wartime they're getting married in bigger bunches than ever before. Even statistics can change.



MONTHLY WASHINGTON REPORT ON DEFENSE CONSTRUCTION

COMPILED BY A. D. TAYLOR OF CLEVELAND

NOTE—*Since September, 1940, Dr. A. D. Taylor, President of the American Society of Landscape Architects, has been reporting regularly in* PENCIL POINTS *on developments in Washington affecting the technical planning professions. It is suggested that new readers turn to previous issues to acquaint themselves with information published heretofore over Dr. Taylor's signature, some of which is pertinent to full understanding of what he has to say here.*

In that part of the Defense Housing Program for which funds are provided under the Lanham Bill, the Federal Works Administrator has assigned twelve projects as follows:

Public Buildings Administration	
Indianhead, Md.	650 units
New London, Conn.	300 units
Vallejo, Calif.	950 units
United States Housing Authority	
Jacksonville, Fla.	300 units
Pensacola, Fla.	100 units
Charleston, S. C.	600 units
Philadelphia, Pa.	500 units
Boston, Mass.	1,050 units
Bremerton, Wash.	800 units
Navy Department	
Oahu, T. H.	1,000 units
Office of Federal Works Administrator	
Camden, N. J.	500 units

Local architects and engineers and landscape architects will undoubtedly be employed on the foregoing projects, with the exception of those assigned to the Public Buildings Administration and to the Navy Department. Detailed information concerning these projects is available in the December 7th issue of *Public Housing*, to which anyone interested in housing may subscribe through the Superintendent of Documents at Washington, D. C. (Subscription Price $1.00 per yr.). This is a publication of the Federal Works Agency, through the United States Housing Authority. This information is also covered in Release No. 57 dated November 29, from the FWA.

Rapid progress is being made in the Defense Housing Program of the War Department, for which the PBA is preparing plans, specifications and awarding contracts. Plans and specifications have been completed for approximately 20 projects, and an equal number of projects are now in the planning stage. Contracts for these projects are being awarded on a cost-plus-a-fixed-fee basis.

NAVY DEFENSE PROJECTS

Many architects and engineers in private practice have been employed on the major defense projects being completed through the Bureau of Yards and Docks. A partial list of some of these more important projects (other than those concerned with housing) are included in the accompanying list, in addition to those major projects listed in the December issue of PENCIL POINTS.

MAJOR PROJECTS UNDER BUREAU OF YARDS AND DOCKS (NAVY DEPARTMENT)

Name of Project	*Location*	*Estimated Cost*
Pacific Naval Air Station	Islands in Pacific	$14,600,000
Naval Air Station	San Juan, Puerto Rico	8,475,000
Naval Hospital	Norfolk, Va.	175,000
Naval Air Station	Guantanamo Bay	5,190,000
Naval Operating Base	San Diego, Cal.	3,666,000
Submarine Base	New London, Conn.	2,300,000
Naval Training Station	Great Lakes, Ill.	450,000
Housing Facilities	Long Beach, Cal.	1,263,000
Naval Operating Base	Norfolk, Va.	2,284,000
Norfolk Naval Hospital	Portsmouth, Va.	437,000
Additions to Naval Academy	Annapolis, Md.	1,780,000
Naval Base	Key West, Fla.	923,000
Housing Facilities	Newport, R. I.	1,655,000
Naval Ordnance Plant	South Charleston, W. Va.	1,527,000
Housing Facilities	Navy Yard, Washington, D. C.	1,900,000
Housing Facilities	Naval Air Station, Miami, Fla.	555,000
Housing Facilities	Orange, Texas	1,480,000
Housing Facilities	Corpus Christi, Texas	1,173,000

This list does not include those projects which were included in the October issue of PENCIL POINTS. Unless the program is expanded, it seems that the major portion of the defense projects to be constructed by the Navy are now under contract. There is likelihood of considerable expansion both in the Navy and in the War Department program.

Releases from the Navy Department revised to December 12, 1940, concerning contracts which have been awarded by the Bureau of Yards and Docks, and other releases containing projects for which contracts have not yet been negotiated are available upon application to the Bureau of Yards and Docks.

MAJOR PROJECTS UNDER CONSTRUCTION DIVISION, QUARTERMASTER GENERAL'S OFFICE (ARMY)

Information concerning estimated cost on this list of projects not immediately available.

Name of Project	*Location*	*Architect-Engineer*
Tent Camp	Abilene, Texas	*Freese & Nichols,* Ft. Worth, Texas
Atlanta General Depot	Atlanta, Ga.	*Robert & Co., Inc.,* Atlanta, Ga.
Edgewood Arsenal Cantonment	Edgewood, Md.	*Whitman, Requardt & Smith,* Baltimore, Md.
Replacement Center	Spartanburg, S. C.	*The Harwood Beebe Co.,* Spartanburg, S. C.
Wilmington Firing Center	Wilmington, N. C.	*W. S. Lee Corp.* and *Wm. C. Piatt* Charlotte, N. C.
Atlanta Small Arms Ammunition Plant	Atlanta, Ga.	
Chemical Plant	Morgantown, W. Va.	*Du Pont Co.,* Wilmington, Del.
Small Arms Ammunition Plant	Denver, Colo.	
Huron TNT Plant	Huron, Ohio	*E. B. Badger & Sons,* Boston, Mass.
Jefferson Proving Grounds	Madison, Ind.	*Russ & Harrison,* Indianapolis, Ind.
Kingsbury Ordnance Plant	Laport, Ind.	*Giffels & Vallet* and *Chas. Cole & Son* South Bend, Ind.
Lake City Ordnance Plant	Lake City, Mo.	*Smith, Hinchman & Grylls,* Detroit, Mich.
Milan Loading Plant	Milan, Tenn.	
Bag Loading Ordnance Plant	New River, Va.	*Hercules Powder Co.,* Wilmington, Del.
Sheffield Ordnance Depot	Dayton, Ohio	*J. Douglas Lorenzo,* Dayton, Ohio

MAJOR GENERAL HOSPITAL PROJECTS UNDER CONSTRUCTION DIVISION, QUARTERMASTER GENERAL'S OFFICE

Location	*Size of Hospital*	*Architect-Engineer*	*Estimated Cost*
Atlanta, Ga.	2,000 beds 128 bldgs.	*Cooper & Cooper, Inc.* Atlanta, Ga.	$2,336,000
Charleston, S. C.	1,000 beds 80 bldgs.	*Lafaye, Lafaye & Fuir*	1,344,000
Ft. Benjamin Harrison, Ind.	1,000 beds 80 bldgs.	*McGuire & Shook*	1,580,000
New Orleans, La.	1,000 beds 80 bldgs.	*Favrot & Reed* New Orleans, La.	1,351,000
Santa Barbara, Cal.	750 beds 62 bldgs.	*Allison & Allison* Los Angeles, Cal.	1,100,000
Vancouver, Wash.	750 beds 60 bldgs.	*Whitehouse & Church* Portland, Ore.	936,000

It should be noted that six major general hospital developments have been announced. Each of these hospitals is in the immediate vicinity of a city of considerable size, and will care for those cases which are not normally the kind of cases for which the hospitals on army posts are being developed. The site planning and engineering problems in these major general hospital projects assume greater importance than the architectural problems because of the fact that somewhat standardized types of building floor plan and general design heretofore prepared by the War Department are used for these buildings. Unfortunately it does not seem that, to date, adequate consideration is being given to the site planning and site development problems (which are the normal functions of the landscape architect) on these projects. Additional hospitals will in all probability be developed beyond this list now announced.

WORK FOR PLANNING PROFESSIONS

Many engineers in private practice should procure employment on defense housing projects being administered through the PBA. It is the general policy on each site to employ civil engineers in private practice to prepare boundary maps where new areas are being purchased, and to prepare topographic maps to be used as a basis for the site plans and other work.

The personnel of the Site Planning Section of the PBA now includes approximately 25 landscape architects engaged in Site Planning Work. A number of men from this technical planning profession have been employed and others will probably be employed. So far as the employment of architects is concerned, it has not been necessary to increase the number of architects employed in the PBA because of the housing program, for the reason that all other work not concerned with defense (relating to post offices and other public buildings) has been curtailed in order to give precedence to that part of the building program relating specifically to defense.

The extent to which additional projects may be allocated to the USHA, thus providing employment for representatives of the planning professions in private practice, continues to be uncertain. There is increasing indication that the USHA may have an important part in many of the defense housing projects.

AIR FIELD DEVELOPMENT

The work on air fields required by the army in the defense program has been taken over by the Corps of Engineers, and Releases are published from the Corps of Engineers office concerning projects on which work is being undertaken.

The Civil Aeronautics Authority through its engineering staff advises with other government agencies concerning the design and construction problems on the air fields but does not undertake any construction through its office.

A sum of $40,000,000 has recently been made available for the development of municipal air fields throughout the United States. This money is to be expended for new air fields, increasing the size of existing air fields and is available mainly for engineering construction required to develop air field space for the operation of planes. These funds are not generally available for any building construction. It is estimated by the Army that approximately 250 air fields of adequate size and with properly paved runway areas must be available in the United States under the present emergency program. The design and construction of these fields provide much work for representatives of the engineering professions.

JOINT ACTION BY PROFESSIONS

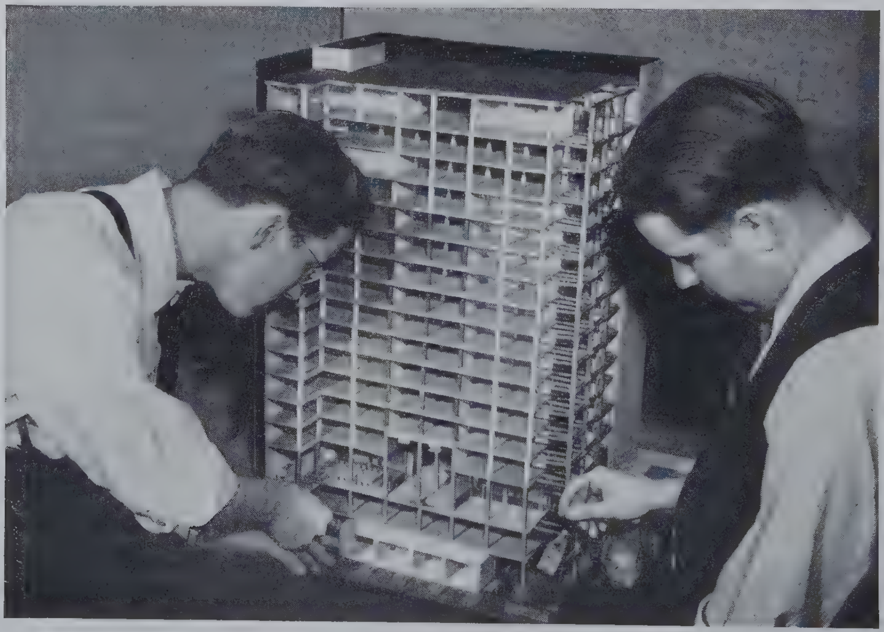
Through representatives officially appointed by their respective governing boards, these professions have been in joint conference on a number of occasions during recent months, for the purpose of acting jointly in those matters of common concern, functioning in a collaborative relationship on problems concerning defense housing.

An effort is being made by the joint committee to develop a statement concerning the Division of Design Responsibilities and Scope of Work on Defense Housing Projects when these professions are employed in the normal way in which they should function, in collaborative capacities.

This joint committee is endeavoring to develop a form of contract for the employment of the services of architects, landscape architects and engineers on housing projects. Consideration is also being given, as a result of recent conferences with officials of the USHA, to questions of fees which the representatives of each of these professions should receive for services on defense housing work. Heretofore the services of architects, engineers, and landscape architects have been performed for a lump sum fee, the amount of which has been determined in accordance with a schedule of fees mutually agreed upon between each respective profession and the Housing Authority. It is now proposed that the remuneration paid to representatives of each of these professions will be on a "cost-plus-a-fixed-fee" basis, under which procedure the planner would be paid a fee (as on other major defense projects) for his consulting services plus the actual cost incurred for drafting work, clerical work, and other items which normally are included as a part of the cost of any professional planning services.

A. D. TAYLOR

December 16, 1940



Joseph Shields and Gerard Granfield, architectural students at Pratt Institute, Brooklyn, with skyscraper model showing construction details and reinforcements designed to make center area safe in case of bomb attack. Bomb shelter is being put into place in basement. Pratt students are working under the direction of Erling F. Iverson, Rome prize winner in 1938, who spent the last two years in Europe studying air raid defense in Germany, England, Netherlands, Belgium, and the Scandinavian countries. Austin Mather, Instructor in Town Planning, and Richard M. Bennett, Instructor in Residential Architecture, are assisting Mr. Iverson in conducting the course in Defense Building

A POT POURRI FOR ARCHITECTS

BY TALBOT F. HAMLIN

Frank Lloyd Wright at the Museum of Modern Art. There is one lesson for architects in the large, confused retrospective exhibit of Frank Lloyd Wright at the Museum of Modern Art; it is the lesson, which should be obvious to everyone, that the extraordinary quality and success of Wright's work has little or nothing to do with functionalism—it is based on qualities quite different. And this, I think, is true of all architecture which is great. To talk about functionalism and the success with which a building performs the practical job for which it is designed as though that were a guarantee of architectural success is like trying to judge a perfect lyric poem on the basis of pure logic. There are great poems, much loved, which, if they do not deny logic, at least are not susceptible to logical analysis; they transcend it. And, similarly, all great architecture must transcend its practical necessities. One might almost go so far as to state that the measure of artistic success in buildings is the measure of this transcendence. In other words, to an efficient solution of his problem the true architect adds the quality of creative beauty; and he becomes an artist. The functional analysis of architecture tends frequently to blind one to the importance of the architect's social function as artist. Naturally he must solve his problems in order to exist at all. But, whereas the efficiency of a building affects merely those who live or work in it, its artistic appearance will profoundly influence not only everyone who sees it, but perhaps even his children and grandchildren. Seen thus, it becomes from any human point of view just as vitally important for an architect to be a creative artist as to be a good logician; and any functional solution becomes merely a diagram which the artistic creation must follow.

It seems to me that this is the reason why Wright's work has long been and still is an extraordinarily powerful influence. These buildings of his are never logical diagrams; they are never mere paper architecture, and no drawings or even photographs can give their quality. They are primarily the free creation of beauty in three dimensions, incarnated in definite building materials. They are primarily not service areas and entertainment areas and working areas; they are primarily colors and textures, light and shade, changing and alive. And, whatever one may think of the logic of their plans, of their practicability or the reverse, whatever one may feel about these buildings as places in which to live or work, one cannot help being impressed by this amazing creative sculptural skill which patterns light and shade obtained by wall and opening, recession and projection, with the colors and textures of building materials put together to form actual things to be enjoyed. Much of it may be "difficult," even obscure, as some great writing is difficult or obscure, at first sight; yet out of this complex whole eventually comes a richness of subtle harmony perhaps unobtainable in other ways.

Another quality easily apparent in the best of the Wright work is the discipline and rhythm of chosen geometric shapes as a basis on which the design is created. Sometimes this geometric quality, especially in its earlier applications, may lead to overcomplication and even occasional absurdity; yet as Wright studies these geometric patterns more and more, and the solutions become more and more simple, the repetition of similar angles or similar dimensions gives to the final simplified expression a rhythmical richness that is unique. Even when this rhythmical repetition seems overstressed, as it occasionally does in Wright's work, it nevertheless is one of the qualities chiefly responsible for the beauty of his best work.

Thus the beauty that flowers in architecture is, even in the hands of as great and imaginative an architect as Frank Lloyd Wright, the result of imagination plus study. It is disciplined; and, just as the functional pattern of a solution will not of itself give architecture, so the mere choice of directing lines, of modules, or of geometric forms like circles and hexagons will not of itself give architecture. Yet, when the ideas have been sufficiently studied, when the self-criticism and the discipline have been sufficiently intense, beauty may be said to begin.

There is still another lesson, I believe, in the Frank Lloyd Wright work—the lesson of the necessity of being oneself. Question as we may any single work of Wright's, we cannot, I think, ever say of it that here the artist has compromised with his own basic integrity. Whatever it is, it is primarily Wright; and the astonishing revolutionary mass of it comes, I should say, largely from this fact. From it architects may learn not only that architecture is still, and must always be, an art, but also that architecture must be founded on a personality, a character. We should not, as we cannot, follow him by becoming Wrights ourselves, or by copying his own peculiar and personal exuberances. What we must emulate, artists in our profession, is the capacity to be artists, to be disciplined, to be ourselves.

Visual Beauty in the World Today. Wright's work, with its emphasis on the creative, artistic side, leads one to think of the whole position of the ideal of visual beauty in today's world. I write this just as Art Week has drawn to its close. Now Art Week is an attempt to put art on the map; its very existence is an indication that the authorities felt that it was necessary to put art on the map. Artists live by selling their work and their skills to the public. If in a prosperous country like ours this problem has become sufficiently desperate to warrant a Presidential Proclamation and all the artificial ballyhoo of an Art Week, the fact is of great importance not merely to painters and sculptors but to us architects as well. Are not many of our basic professional problems—our failure, for instance, to influence deeply the great mass of low-cost houses—or the comparatively low esteem in which the public holds us—the result of a similar condition? It is well, even at the danger of seeming or becoming pessimistic, to look at the realities. People no more buy pictures as they used to. Is not this indicative of a certain blindness today to the whole field of visual beauty? It is difficult, for instance, to go by a magazine stand anywhere without a violent shock to every æsthetic sensibility. Magazine covers in general are a carnival of bad composition, worse color, and futile content. They are, I believe, on a definitely lower artistic level than they were, say, ten to fifteen years ago. For then their ugliness was merely sentimental; now it is screaming, loud-voiced, and arrogant. Similarly, a great deal of book design today is less pleasant to the eye than that shown in books of thirty years ago; and advertising as a source of visual beauty, after a brilliant phase during the earlier 'twenties, has relapsed into almost universal confusion.

I open myself at once, of course, to the accusation of having an æsthetic sense hidebound and insensible to newer values. There is perhaps a new and rationalized æsthetic of pulp magazine covers. It is necessary to define beauty, therefore. Beauty, in the sense in which I am using it, signifies an ideal of harmony and unity in composition and color, considered as a worthy end in itself and not as a mere means of achieving other ends—such as, for example, sexual stimulation or vulgar success. In other words, the ideal of visual beauty means, among other things, that harmony of form and color are important enough factors in the sum total of human experience to warrant considerable sacrifice in their achievement. It is a serious ideal exactly as important as the ideal, say, of good manners or consideration for others. Sometimes it would seem as though the purveyors to popular taste considered that the public had only two ideals with any visual beauty content whatsoever: one the dazzle of shiny mechanical gadgets like automobiles, and the other the artificial prettiness of the latest Hollywood starlet. Visual novelty rather than visual beauty, visual shock rather than visual harmony—these ideals control much of what confronts the eyes of the average person, until his entire natural taste becomes vitiated. How else account for such a fact as this: that in an article on plastics in a recent number of an "art" magazine one of the objects shown with great *éclat* was an ill-designed Hepplewhite chair die-cast in transparent Plastics, and that another was a Plastic Jacobean stool with twisted legs? What greater visual blindess than to think that forms in an opaque, textured material could ever be used in a transparent, absolutely smooth material without losing whatever character they originally had?

I saw a footnote to progress the other day which interested me: the fact that the average speed of traffic through New York City is about the same today as it was in the 1880's; all our inventors and our factories, our commercial enterprises, our salesmen, working like mad in the transit field to keep us barely up to the average speed record of horses and carriages sixty years ago! Something perhaps somewhat comparable is true in the art world. Magnificent creative abililty, an extraordinary command of techniques, a flood of processes of graphic reproduction, and the result seems to be that around the world today there is perhaps even less really serious idealism of beauty than there was in the 1890's and the period of the *Art Nouveau.* We perhaps may sneer at much of the art work produced at that time, but historically we must be aware of the fact that it was that vivid, alive, serious idealism in matters of visual beauty which, working through men like Sullivan, Wright, Van de Velde, Berlage, and Otto Wagner, set going the whole great revolution which has produced the architecture of today.

There is one hopeful thing in the picture: the people of an age today to be the controlling powers behind our commercial and industrial life are people who were educated at a time when nonprofessional art education was at a minimum, and education did least to stimulate æsthetic sensitiveness and imagination. Outside of a few progressive schools, nonprofessional art education hardly existed; and, however good the training the colleges gave in languages and sciences, the æsthetic field was touched only in literature —the visual arts were completely forgotten. Now that has changed, and education in the visual arts is playing a large part in high schools and colleges. It is possible that in another twenty years, when the people now in schools and colleges have arrived at positions of power, the picture will be quite different and the accomplishments of our own age, except for the small amount of excellent work which seems to go on through all periods, will be looked back upon as evidence of a kind of dark age.

Certainly there is nothing to be gained by trying to return to the purple passages and exaggerated poses of the Naughty Nineties. We are of our own period, and we can work only within its framework, looking forward, not back. Each one of us must strive, as far as he is able, to see that art in design—that is, a serious and idealistic search for visual beauty—is produced to the uttermost of each one's ability. In our work and our thoughts we must do our utmost, it seems to me, to overcome that state of mind which considers the word "arty" as a sort of ultimate damnation and, instead, reestablish the ideal of creative art in a controlling position, so that the blessings of composed and harmonious visual patterns may flow out over all the people of the world.

DEFENSE HOUSING. The successive releases with regard to the defense housing program add, little by little, to the previous picture of a terrifically busy confusion. Under the general ægis of the Public Buildings Administration—the architectural office of which was formerly the Procurement Division, and before that the Office of the Supervising Architect of the government — each department interested seems to be doing pretty much as it pleases. There is study and research going on; but of any attempt to correlate the various activities of the departments, to put before the designing offices of each, or the offices of private architects who may be called in, adequate standards of community planning, there is little or nothing. Every architect in government service has become overnight a housing "expert"; and all the carefully and painfully gained experiences of local housing authorities and the United States Housing Authority, of regional planning associations and trained specialists, seems to be, for the time being, wasted on the scene like music on the desert air.

It is not as if we knew nothing about community values. Adding together the knowledge available in organizations and individuals the country over, we know a very great deal, and we know too the tremendous value to morale of an adequate community life; yet, save in a few exceptional cases, the various government authorities engaged in the defense housing program seem to have made no real attempts to tap this fund of available knowledge. This is, to put it mildly, a most unfortunate state of affairs.

Economically, too, the program has certain features susceptible of extraordinary abuse. The arrangement by which the R. F. C. can loan practically the entire cost of a project to private individuals, and this loan may then be guaranteed by the FHA, might very readily develop into a racket and a scandal if not most carefully watched. The aims, of course, of the defense housing movement, beyond merely furnishing places where workers can sleep and eat, must be correlated with (a) existing city plans and transit facilities, (b) existing reservoirs of housing space (which are being rather carefully surveyed), (c) the most careful study of the problem of temporary vs. permanent houses, examined with regard to each particular project, and (d) the development of a community pattern which shall be itself an inspiration to good work, an example to the rest of the country, an expression of the broad base of American democracy. This will necessarily require the most careful consideration of such matters as community recreation, schools, open space, and so forth. To achieve this correlation demands a special type of training, experience, and imagination — makes imperative the advice and services of acknowledged authorities.

Moreover, it appears that much of the actual design of these projects is to be done by the architectural office of the Public Buildings Administration, the members of which deem themselves to have become housing experts overnight, just as they are post office experts and courthouse experts. The problem, then, would seem to be something like this: Do we want defense housing which bears the same relation to the best housing elsewhere that the Washington Triangle and the stock post office designs of the P.B.A. bear to the best modern public architecture produced elsewhere? Do we want an architecture which looks backward or forward, which aims at the adequate or the best? If we do not wish to be saddled with a mass of stupid and standardized barracks, to become the slums of the future, we must make every effort to see to it that the best housing and community planning skill available in this country is used at once. This could be achieved by the immediate formation of a board of consultant planners and architects, to correlate the whole program, to set up standards, and to see that all projects follow them. Such a consultant board of the best planners and housing authorities in the country could go far toward making our defense housing more efficient, more useful, more beautiful. It was the existence of advisers of this type in the United States Housing Corporation and the housing division of the Department of Labor during the last war which gave us such developments as those of Bridgeport, of Yorkship, and many others — developments that have proved community assets ever since. Can we not say most confidently to the government, "Here is the knowledge and the skill; why not use it to the full?"

PENCIL POINTS DATA SHEETS

Prepared by DON GRAF, B.S., M.Arch.

THE DISREGARD OF THE OBVIOUS

We are indebted to Edward V. Lofstrom of Frost & Lofstrom, Architects in Willmar, Minnesota, for calling our attention to page 67 in the *American Builder* for December 1940. On this page of the *American Builder*, in a column on "Facts, Opinions and Advice," appears a letter requesting the expert assistance of the *American Builder* Editor in solving a building problem.

The gentleman who is seeking the, shall we say, "professional" advice of the *American Builder* Editor is a professor in the Medical College of the State of South Carolina, name of William A. Prout. We haven't the faintest idea what the good professor would think of an architect who sought medical advice from the pharmacist in the corner drugstore or from the home medical encyclopedia—especially concerning an operation in the $5,000 to $10,000 class. We do seem to recall, however, something more than a mild furor recently, when an attempt was made to make medical advice available to large groups of workers at a reduced group rate.

Now the good Medical Professor Prout wants the Editor of the *American Builder* to help him with his house plans. Medical Professor Prout says that he is sorrowful and distressed to find that an architect's plans which he secured at considerable expense cannot be executed within his budget.

To digress for a paragraph that has nothing whatsoever to do with the *American Builder* or our distressed medical friend, all of us in architecture have been filled with sorrow when a client has gently but firmly insisted on twice as much house as the architect tells him he can have for the money in hand. If the architect can control either quality of construction or cubage he can enclose any given amount of space,

SIZES OF PLAYGROUND APPARATUS

Index No.
D2s
PLANNING

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

SET
19
JAN
1941

In the following table are given the dimensions and approximate use areas of several types of apparatus frequently installed on children's playgrounds. Since the types of equipment made by the various manufacturers differ somewhat the dimensions and areas given are merely suggested. Furthermore, it is not likely that all of the apparatus listed will be found on a single playground. It is desirable to provide the safety zones around all apparatus, especially that which is movable.

Type of Apparatus	*Length of Apparatus*	*Height of Apparatus*	*Space Required*
Circular traveling rings	10′ dia.	12′	25′ dia.
Gang slide	16′	8′	20′x45′
Giant stride		12′	32′ dia.
Horizontal bar	6′	8′ upright	12′x20′
Horizontal ladder	16′	7′-6″	8′x24′
Merry-go-round	10′ dia.		30′ dia.
Sand box on table	6′x10′ to 10′x20′		12′x16′ to 16′x30′
Slide	16′	8′	12′x30′
Slide-spiral	35′	18′	25′x35′
Swings—set of 3	15′ at top	12′	30′x35′
Swings—set of 6	30′ at top	12′	30′x50′
Teeters—set of 4	12′ to 15′	2′-6″	20′x20′
Traveling rings—set of 6	40′ at top	14′	20′x60′

The Jungles Gymn and other outdoor gymnasium outfits are manufactured in several sizes and combinations which occupy widely different areas. It is advisable to have all such equipment placed at least 15′ from the nearest fences, building or other apparatus.

The wading pool may be any desired size or shape altho it is usually rectangular or circular. The circular pools generally have a diameter of from 40′ to 75′.

The platform for dancing may be in any desired dimension. An average size would be 20′x30′ to 30′x40′. According to a number of authorities from 40 to 50 square feet per child is the amount of space which should be provided for apparatus play.

From "New Play Areas, Their Design and Equipment" edited for the Nat'l. Recreation Ass'n., by Geo. D. Butler.

PLAYGROUND GAME AREAS

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PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

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This table is reprinted (with slight revisions) from "New Play Areas, Their Design and Equipment," edited for the National Recreation Association by George D. Butler. ($3.00)

Name	*Size of Marked Area (in Feet)*	*Size Field Required*
Archery	90 to 300 in length	50 (min. width) x 450 (max. length)
Badminton	17 x 44 (single) 20 x 44 (double)	25 x 60 30 x 60
*Baseball	90′ diamond	300 x 300 (min.) 350 x 350 (aver.)
*Basketball (men)	35 x 60 (min.) 50 x 94 (max.)	60 x 100 (aver.)
Basketball (women)	45 x 90	55 x 100
Boccie	18 x 62	30 x 80
Bowling Green	14 x 110 (1 alley) 110 x 110 (8 alleys)	20 x 120 120 x 120
Box Hockey	4 x 10	16 x 20
Clock Golf	Circle 20′ to 24′ in diameter	30′ Circle
Cricket	Wickets 66′ apart	420 x 420
*Croquet	30 x 60	30 x 60
Deck Tennis	12 x 40 (single) 18 x 40 (double)	20 x 50 26 x 50
Field Ball	180 x 300	210 x 340
Field Hockey	150 x 270 (min.) 180 x 300 (max.)	200 x 350 (aver.)
Football	160 x 360	180 x 420
*Handball	20 x 34	30 x 45
Hand Tennis	16 x 40	25 x 60
*Horseshoes (men)	Stakes 40′ apart	12 x 50
*Horseshoes (women, boys)	Stakes 30′ apart	12 x 40
*Lacrosse	230 x 380 (min.)	
Paddle Tennis	16 x 44 (single) 20 x 44 (double)	28 x 60 32 x 60
Polo	600 x 960 (max.)	600 x 960
Quoits	Stakes 54′ apart	25 x 80
Roque	30 x 60	30 x 60
Shuffleboard	6 x 52	10 x 64
Soccer (men)	150 x 300 (min.) 300 x 390 (max.)	240 x 360 (aver.)
Soccer (women)	120 x 240 (min.) 180 x 300 (max.)	200 x 320 (aver.)
Softball	60′ diamond	250 x 250 (min.)
Speedball (men)	160 x 240 (min.) 160 x 360 (max.)	180 x 300 180 x 420
Speedball (women)	180 x 300	200 x 340
Table Tennis	5 x 9	12 x 20
*Tennis (ideal)	27 x 78 (single) 36 x 78 (double)	57 x 138 66 x 138
Tether Tennis	Circle 6′ in diam.	20 x 20
Touch Football	160 x 300	175 x 330
Volley Ball	30 x 60	50 x 80

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*See detailed drawings in *Data Sheet* Section D2.

within reason, for a given sum, but, without referring to Medical Professor Prout or the *American Builder* in any way, it sometimes happens that willful clients do not allow the architect to exercise his judgment in either direction.

Without any connection whatever with the Editor of the *American Builder* or professors; we came across an interesting case recently. An architect pointed out to a prospective client that either his pretentious requirements of a home would have to be trimmed or more than $5,500 would have to be made available for the building. The client was quite miffed, as we understand it, at the architect's inability to control the total cost of materials and labor. The client, so we understand, subsequently had his house built from plans prepared by a local lumber yard and although the requirements were lowered considerably, the house cost, so it is rumored, about $2,000 *more* than originally allowed the architect.

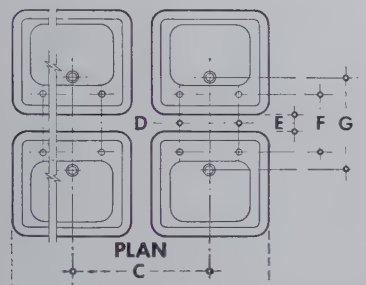
But to get back to Medical Professor Prout and the *American Builder*. Professor says he would like to get some plans for a brick veneer house from the *American Builder*, if possible, which include a rather large living room of 14′ x 22′ plus, a sizable dining room, kitchen, small den or study, small bath, two or three bedrooms and a bath—all of which must cost not more than $6,000, and less if possible! Medical Professor Prout states frankly in his letter that he is becoming desperate.

The *American Builder* Editor in his answer suggests that Medical Professor Prout's difficulty might be due to his having read consumer or architectural magazines that frequently publish some of the misleading or incomplete or wholly uninformed estimates of the costs of home building. The Editor of the *American Builder* says that he finds repeated over and over the difficulty that many architects do not have an adequate knowledge of building costs. He uses a clever simile to bring out his point, suggesting that architects

BATTERY LAVATORIES

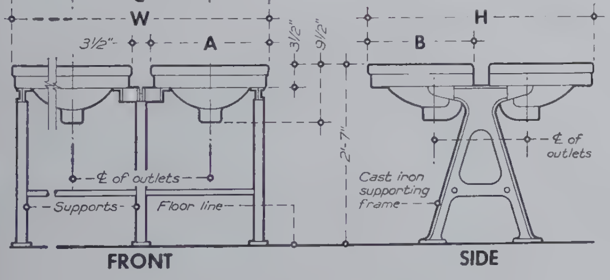
Index No.
D6k
PLANNING

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

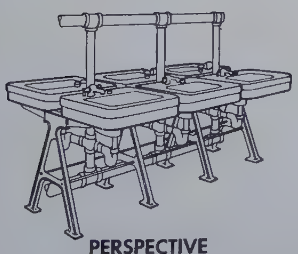


NUMBER DOUBLE BATTERIES	W 20"x18" Lavatories	W 24"x21" Lavatories
1	1'-8"	2'-0"
2	3'-7½"	4'-3½"
3	5'-7"	6'-7"
4	7'-6½"	8'-10½"
5	9'-6"	11'-2"
6	11'-5½"	13'-5½"

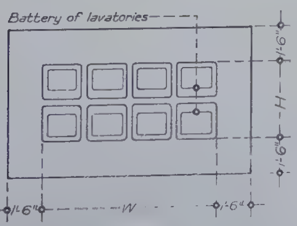
Dimensions may vary slightly according to the different manufacturers.



SIZE OF LAVATORY		DIMENSIONS									
A	B	C	D	E		F		G		H	
				Min	Max	Min	Max	Min	Max	Min	Max
20"	18"	1'-11½"	10"	2"	4"	8¼"	10¼"	1'-3¾"	1'-5¾"	3'-2"	3'-4"
24"	21"	2'-3½"	1'-0"	2"	4"	1'-0"	1'-2"	1'-7½"	1'-9½"	3'-8"	3'-10"



PERSPECTIVE
SHOWING BATTERY INSTALLATION



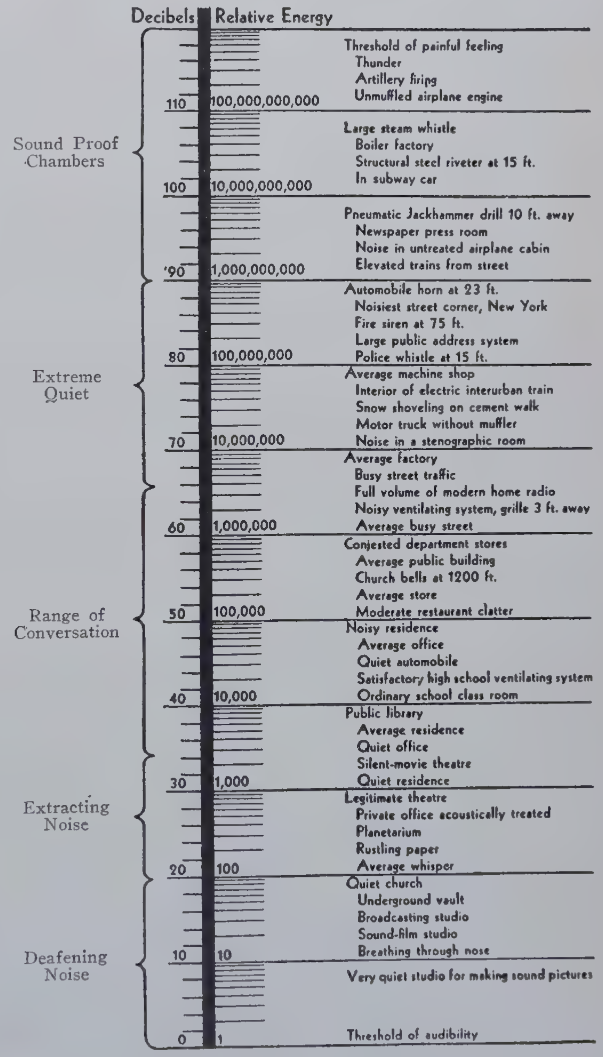
NOTE—Allow 1'-6" clear space all around a battery of lavatories

SOUND INTENSITIES

Index No.
F8k
CONSTRUCTION

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

SET
19
JAN
1941



incline to encourage *Cadillac appetites for Ford incomes!*

Now the Editor of the *American Builder* seems to think that the proper way for Medical Professor Prout to get the home he wants is first to go to a reliable builder, or have a prominent lumber dealer recommend a reliable builder. The good Medical Professor Prout is advised to sit down with the reliable builder "and" find out how big a house can be built for the available money. While still sitting down, we assume, the good Medical Professor Prout and the reliable builder are expected to agree on dimensions and specifications.

Now we may have given our architectural readers the impression that the *American Builder* Editor does not see eye to eye with the architectural profession. Just to dispel any such silly notion, we want you to know that the Editor of the *American Builder* has definitely suggested in his reply to good Medical Professor Prout that when the dimensions, equipment, specifications and estimate of the cost have been decided between himself and the reliable builder, THEN if good Medical Professor Prout wishes, he can call in some architect to draft plans . . . !

We wonder if, by any chance, good Medical Professor Prout occupies, at the Medical College of the State of South Carolina, the chair of Professional Ethics.

ARCHITECTS AND WELDING

BY VAN RENSSELAER P. SAXE

Those using welding for steel have found out that the method has merits—merits which are responsible for an increasing use among engineering organizations. Architects who have studied the subject of welded steel more often than not become enthusiastic over its advantages.

A careful analysis indicates that most of the present use of welding in buildings has been advocated by engineers. These men are employed by the large engineering contracting companies who make a business of factory and heavy construction. What are the advantages revealed by the experience of those regularly specifying and employing welding? The following points are worth consideration: *Economy, Absence of erection noise, and Design flexibility.*

Since architectural organizations control a large percentage of the nation's total building expenditure, the rapidity with which welding with its concomitant benefits is generally employed will depend in no little part upon general architectural acceptance. The architect instructs his engineer as to the use of concrete or steel for the structural frame of a building. In the same way he can stimulate the use of welding.

ECONOMY

The economy resulting from the use of reinforced concrete is due chiefly to the continuous moments which are developed in concrete beams. The economy of welded steel proceeds from the same use of continuous moments. Less steel is required, and the shop and field work require less labor than any other method of steel assembly.

An actual experience may be cited to illustrate the economy of welded work. One steel company has stated that by submitting welded alternates for multiple story buildings, they have been able to convert considerable riveted work into welded work. They offer a small part of the saving to the owner. Due to the economy of welding, this company has been able to make profits about twice what they would have realized by construction by the method required by the original drawings.

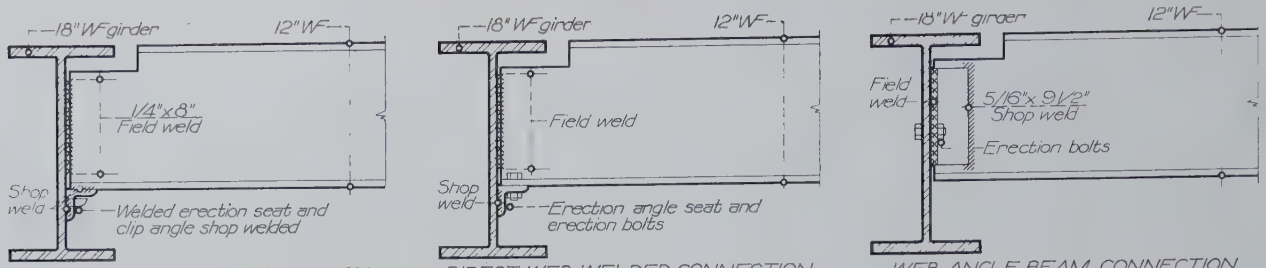
Architects and their engineers are naturally conservative. However, welding is not new nor is it untried. It has been employed for many years in ship, car and tank building. Many welded buildings are in existence in this country and hundreds of welded bridges have been built in Europe. Complete methods of analysis (which are discussed in the second half of this article) are available for the test of welded connections—a much more conclusive evidence of strength than the usual inspection of riveted connections.

It is essential to construct good buildings at the most economical cost. Architects and their engineers should consider structural welding, for it now appears that its progress as a method for structural steel assembly will be even more rapid than the strides made in the general acceptance of reinforced concrete as a structural method.

The economy possible in many cases with welding suggests that the architect can, without harm, instruct his engineer to prepare for welded alternates designed under American Welding Society Codes. Architects in the early days of reinforced concrete often had unsolicited alternate designs submitted on reinforced concrete by some enterprising contractor. Owners had no objections to the use of the reinforced concrete, especially as most building codes permited its use. The low figures on the reinforced concrete had a strong bearing on the rapid acceptance of this material for structural work. The same thing is developing in welding today, but to a minor degree, because welding is just getting in its stride.

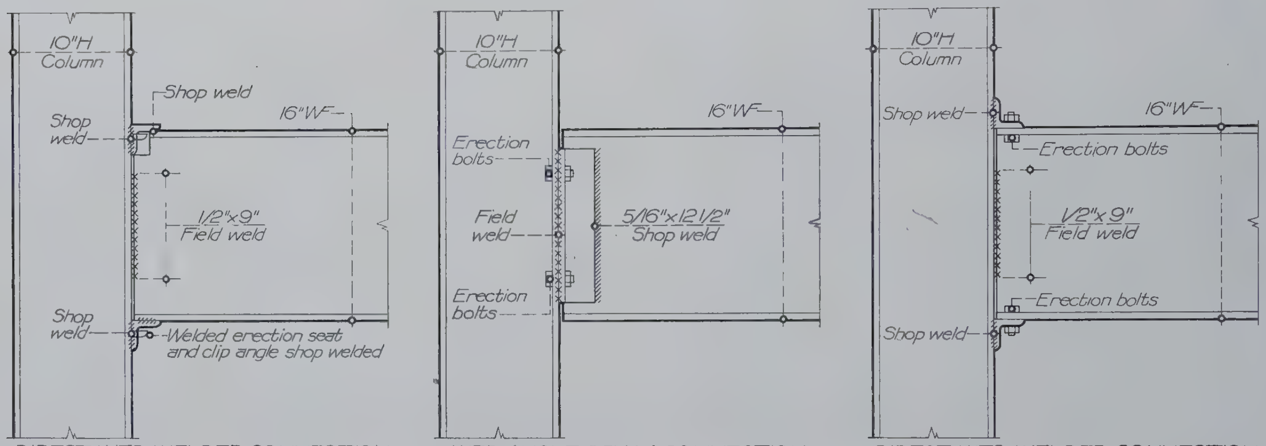
By putting out a welded structural design, in order that all steel companies might figure a job, would enable the owner to secure the savings rather than have some enterprising steel company, through an alternate, show a small saving to the owner and pocket a large profit for themselves.

Some engineers who started early using welded work, tried successfully, so it seems, to throw a lot of mystery around welding by handing out information that it required super-skill in design, fabrication and inspection. This was carried so far that I recite an incident on one of my early welded jobs done about twelve years ago. A self-styled welding expert actually wrote the owner of the building that by no means should his building be constructed under my design and supervision without having



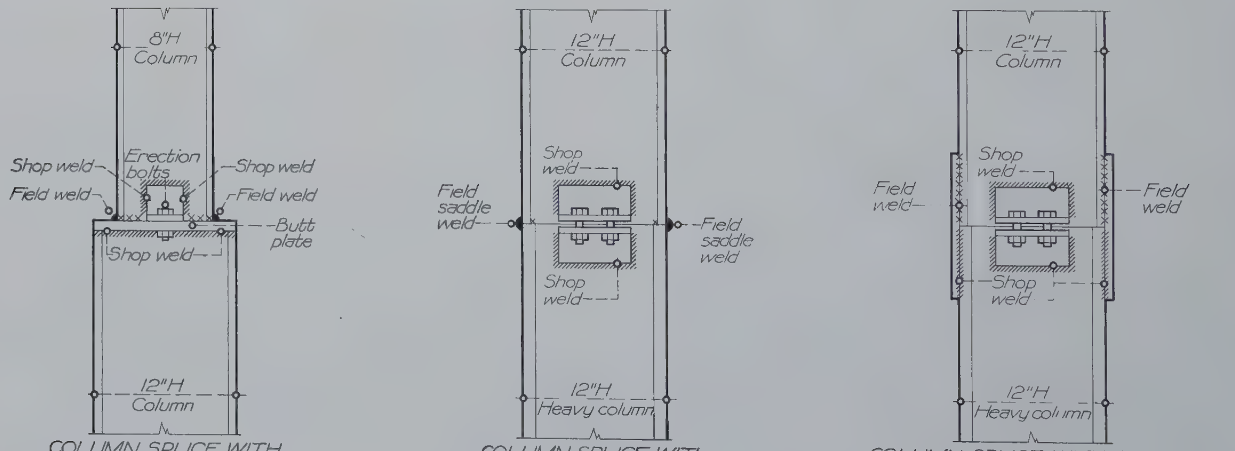
DIRECT WEB WELDED CONNECTION — DIRECT WEB WELDED CONNECTION — WEB ANGLE BEAM CONNECTION

DETAILS SHOWING METHODS USED FOR BEAM CONNECTIONS TO GIRDER



DIRECT WEB WELDED CONNECTION — WEB ANGLE BEAM CONNECTION — DIRECT WEB WELDED CONNECTION

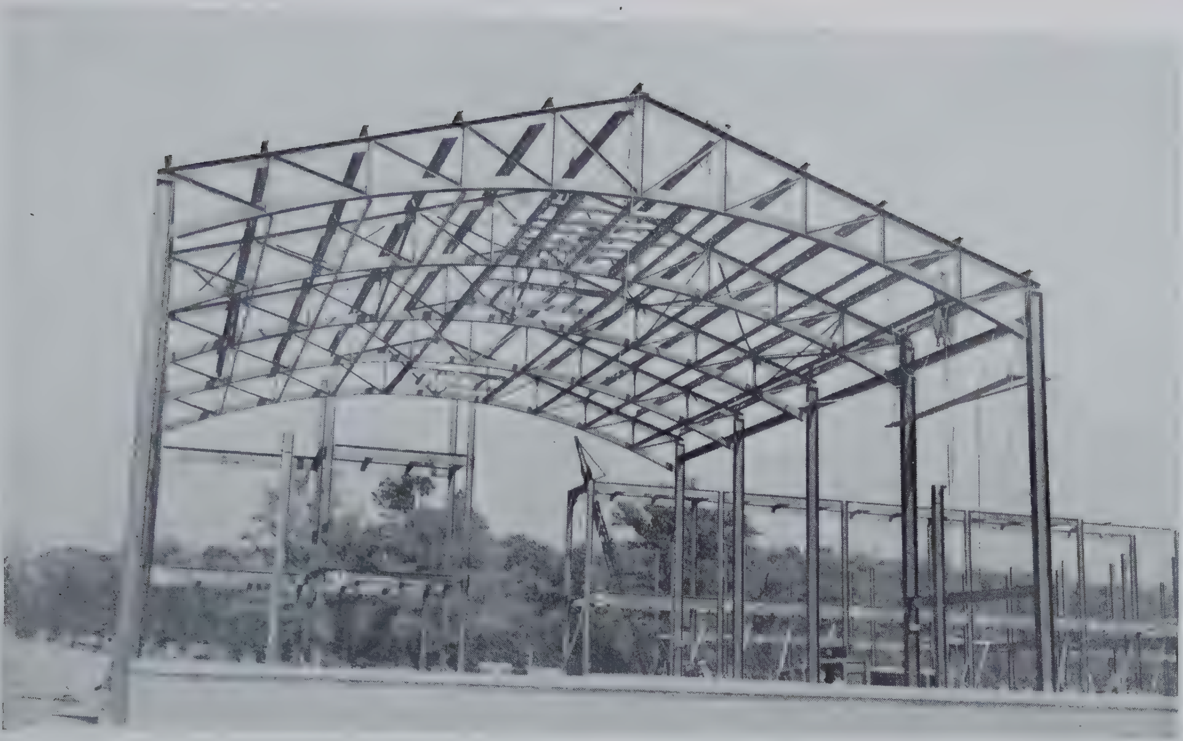
DETAILS SHOWING METHODS USED FOR BEAM CONNECTIONS TO COLUMNS



COLUMN SPLICE WITH BUTT PLATE — COLUMN SPLICE WITH SPLICE ANGLES — COLUMN SPLICE WITH ANGLES AND PLATES

DETAILS SHOWING METHODS USED FOR MAKING COLUMN SPLICES

SOME SELECTED EXAMPLES OF TYPICAL WELDED CONNECTIONS



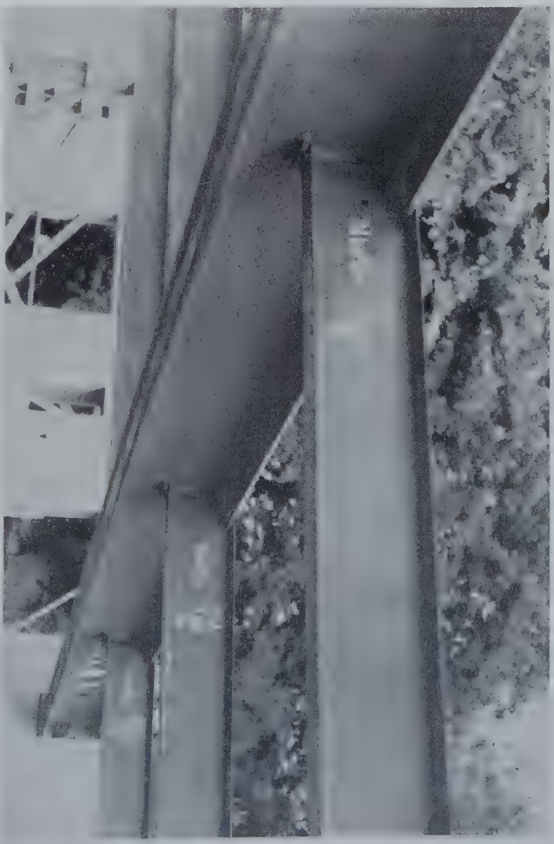
this expert called in as a consultant to examine and check my work. Unfortunately for the gentleman, I had already designed two welded buildings for the same owner—so the expert's letter went in the waste basket!

As one who has designed and supervised construction of over seventy large all-welded buildings, I can assure architects and their engineers that any mystery connected with welding is pure bunk. Today there is probably no large steel fabricating firm who, if the opportunity is presented to them to bid on such work, is not equipped to do high class welded work. Our last welded job, running slightly over seven hundred tons, was bid on by eight fabricators, all of whom were anxious to get the work and who were fully equipped to turn out a high-class welded job.

Most of our work has been union-erected. I believe that this refutes the common objection that union men do not like to work on welded jobs. Our actual experience is that the union steel erector has cooperated in every way to make a success of welded structures. Why should any mechanic object to getting away from the rivet hammer noise and the need for dodging stray hot rivets?

As evidence of savings in time of construction and money which can be made by use of welded connections, there is illustrated herewith the new Nemours Hospital at Wilmington, Delaware. Crisp & Edmunds of Baltimore were the architects, with Massena & duPont of Wilmington associated. The structural design for this building was originally issued as a welded design with an alternate allowed for a riveted structure. The result of this bid was a net saving of $3.75 a ton in favor of the welded structure. There were a number of welded trusses in this building which remained welded under the riveted alternate. If these trusses had been redesigned as riveted to conform to the

WELDED TRUSSES OVER THE AUDITORIUM OF THE NEMOURS FOUNDATION HOSPITAL, WILMINGTON, DELAWARE, DESIGNED BY CRISP & EDMUNDS OF BALTIMORE, ARCHITECTS, MASSENA & DU PONT, WILMINGTON, ASSOCIATES. BELOW IS A TYPICAL WELDED BEAM-GIRDER CONNECTION USED IN BUILDING NOTRE DAME NOVITIATE, BALTIMORE, F. VERNON MURPHY, WASHINGTON, ARCHITECT



riveted alternate, the net increase in the riveted ton price on the entire tonnage of the job would have been 60c a ton so that the actual net saving of the welded job over the same job riveted was \$4.35 a ton. This saving was approximately 7% on the cost of the structural steel.

A more complicated welded structure is the welded roof framing for the new State of Maryland Office Building at Annapolis, Maryland. Henry P. Hopkins and Lawrence H. Fowler of Baltimore, were the architects. The ridge of the roof along the longitudinal axis of the building had to be carried on two rows of welded longitudinal trusses, due to the fact that the ridge was not centered over the corridor columns. At the wings of the building the trusses act as cantilevers to support the valley rafters of the wing roofs. The entire steel tonnage of this roof as a welded job amounted to 151 tons. To produce the same roof as a riveted job required 28 additional tons of steel, about 3 tons of which would have been bent platework to make the connections required by a riveted layout. These were entirely eliminated in the welded layout by the use of direct web weld connections. The cost of the steel per ton under the welded layout was \$3.00 less than under the riveted layout, so that the net saving on this roof amounted to over \$3,000, or nearly 20% of the steel cost.

Many similar examples could be given of large savings to be obtained by use of welding, such as Auditorium Building and two Hospital Dining Hall Buildings in which considerable truss work was required. As welded jobs, these showed savings running as high as 16% on the contract price of the erected steel work.

While money savings are an important item in trying to secure all possible economy in building construction, there are many other items in the use of welding which should appeal to the architect and his client.

ERECTION NOISE

Because of the engineer's freedom to use continuous moment design in welded work, it is generally possible to use smaller depths of steel than required by other methods of design. This means higher ceilings or savings in building height.

It is a method that eliminates the noise of an ear-splitting air hammer—a feature of great value in constructing new buildings in the vicinity of hospitals, schools, offices, apartments and hotels. When constructing additions to existing occupied buildings it is particularly desirable.

DESIGN FLEXIBILITY

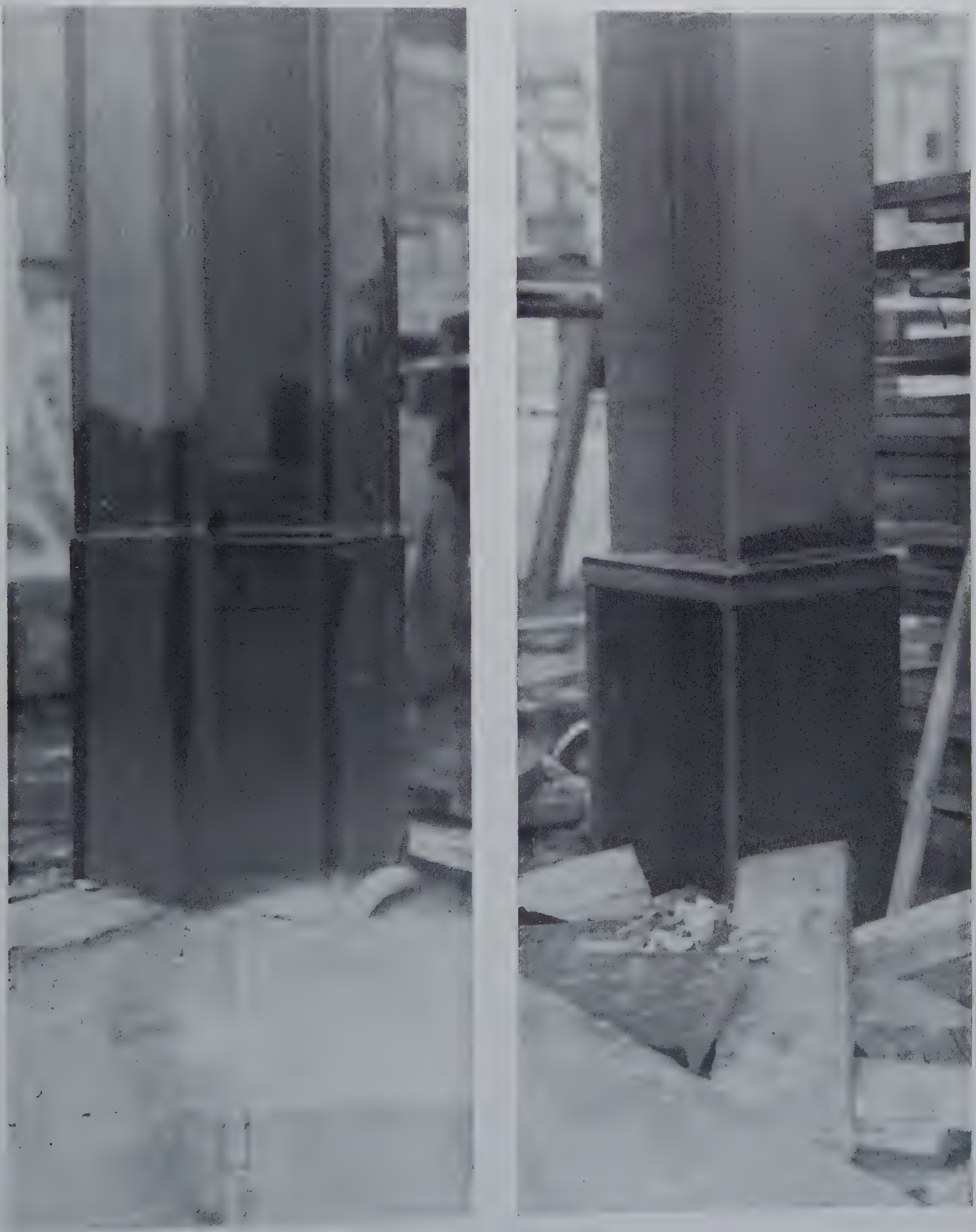
Trusses can be built without gussets so that an exposed truss can be shaped up to add architectural effect to the completed room. Notice the Nemours Hospital trusses. Welded plate girders used as balcony supports in some of our work have been left

THE STRUCTURAL FRAME WAS ALL-WELDED WHEN THE ALLIED ARTS BUILDING IN LYNCHBURG, VIRGINIA (ABOVE) WAS BUILT. THE ARCHITECTS WERE JOHNSON & BRANNON, OF LYNCHBURG. THE WELDED FRAME PERMITS A CONSIDERABLE REDUCTION OF THE REQUIRED STEEL TONNAGE WHEN BUILDING A MULTIPLE-STORY STRUCTURE exposed to blend in with the architecture. A welded plate girder being constructed of only plates with small vertical plates for stiffeners, lends itself very well to an architectural design.

In multiple story buildings where wind bracing may be required, the detail connections of beams to columns are of such simple nature that they do not cause unsightly breaks in architectural finish.

In remodeling old buildings, welding is indispensable. We have been able to reinforce old structures even to adding additional floors that, without the use of welding, would have been impossible jobs.

Welding as a means for structural assembly has been successfully used in all classes of building work. Its use is permitted in every large city in this country. Information covering its design, fabrication, erection and inspection are available and fully developed. (See Andrew Vogel's *Design of Joints for Welded Structures*, American Welding Society.) It is easy to take advantage of this new process which has already started a lowering of costs and changes steel design and fabrication.



TYPICAL WELDED COLUMN CONNECTIONS

WELDING INSPECTION

BY HERBERT R. ISENBURGER

The foregoing article by Van Rensselaer P. Saxe has clearly stated the advantages of welding building structures. There is reason to believe that welding will ultimately replace riveting. Increasing numbers of architects will utilize welding in their designs. Some of them will have had much experience with this new tool. Others will be less familiar with the problem. In any event, the architect will want proof that the welded joints are sound, as the frame is being erected. Many architects are skeptical about the safety of certain welded joints and refuse to consider such structures in their designs. But with X-ray inspection available the soundness of the welds can be proved and their safety put beyond all doubt. No progressive architect need then fear to employ welded structures.

In every branch of industry the testing of materials is important. This is particularly true of weld inspection, where we are dealing with a relatively new development of the art and where so many things depend upon the skill and intelligence of the man who does the work. A number of testing methods have been developed to ascertain quality and uniformity as determined by the several physical, chemical and visual characteristics. Such tests are commonly conducted on selected representative samples which have to be destroyed during this procedure.

X-rays provide us with a means of seeing into and learning a great deal more about the interior of welded joints without destroying or in any way harming them. In welded structures, we are concerned primarily with the properties of differential absorption of wave energy in matter, and the blackening of the photographic film. As with ordinary photographs, darker regions on the negative (or lighter regions on the print) mean that more X-rays have passed through the object at that point, which indicates that the object is more transparent there. Hence cavities will show up in the prints as light spots, whereas heavy impurities or more dense or thicker metal sections will appear as darker regions.

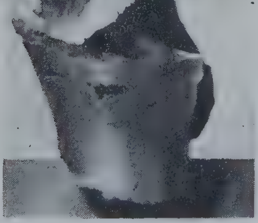


FIGURE 1

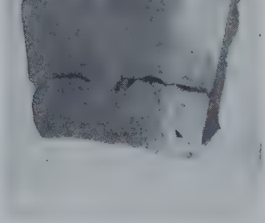


FIGURE 2

The method is so sensitive that defects as small as 1% of the total thickness under exposure can be detected in an exograph.

ModernX-ray equipment is sufficiently flexible to allow quick shifting from one joint to another. The cost averages about 1% of the cost for the building.

In welding practice there are three important applications of radiography: *Development of welding procedure; Shop control;* and *Field inspection.*

WELDING PROCEDURE

While other tests are needed to determine the strength, ductility and intrinsic properties of the weld metal, radiography has one of its most important applications in development studies to establish welding procedures. All these intrinsic physical properties are largely dependent upon the proper selection of filler metal with reference to the plate material, upon the method of welding and upon other factors that can be reduced to simple control. Although an exograph gives information only as to soundnesss, this evidence is highly important. The possible strength and ductility of the weld metal cannot be realized in service where extensive microscopic defects exist. In general, the procedure that gives the soundest weld gives also the best weld.

Where unsoundness is found in a weld that has supposedly been made by a method that should give a sound joint, it may be inferred that the developed technique was not followed, and that in consequence other weaknesses than porosity may be present. Pictures are made and the welding engineer analyzes revealed defects. Later he judges the efficiency of steps taken to correct defects by evidence obtained from negatives of the new joint.

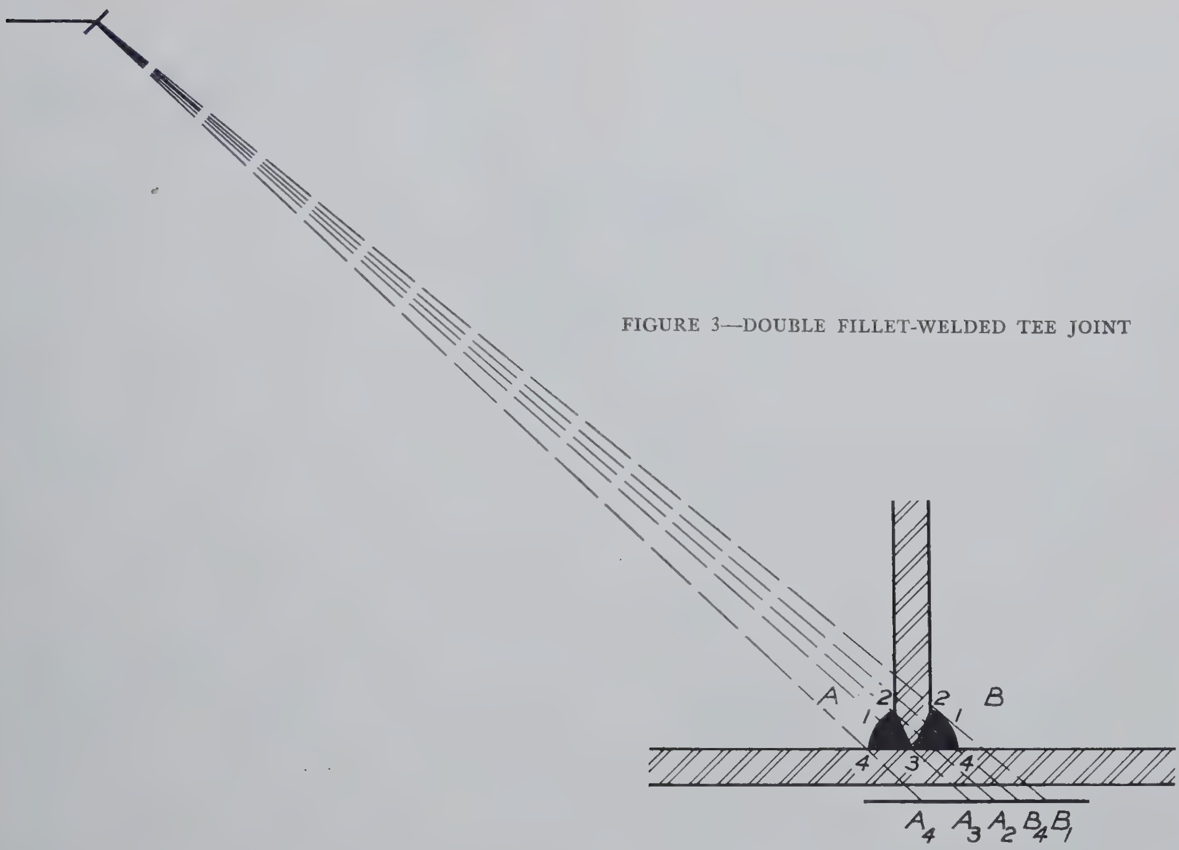
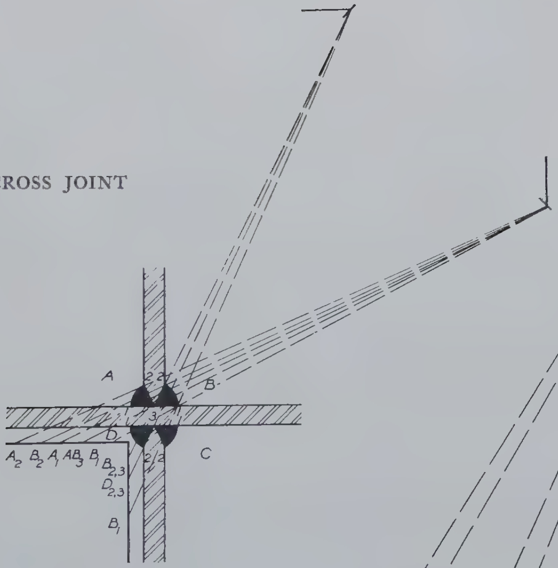


FIGURE 3—DOUBLE FILLET-WELDED TEE JOINT

FIGURE 4—CROSS JOINT



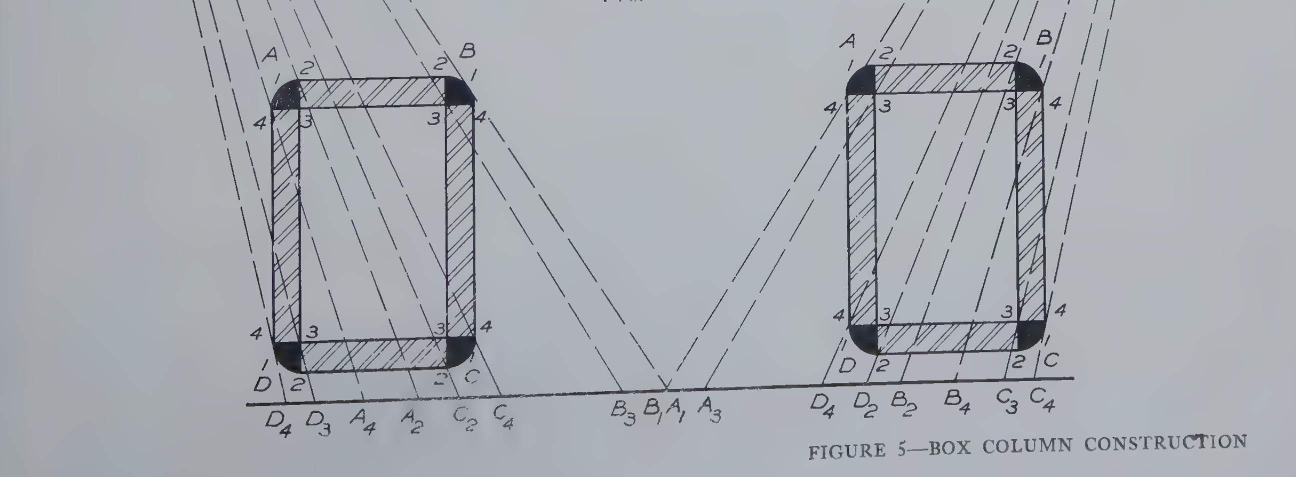

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FIGURE 5—BOX COLUMN CONSTRUCTION

The development is empirical. The use of exographs permits considerable saving of time, partly because several possible welding factors may be studied simultaneously, and partly because the pictorial representation of defects is more easily understood and, therefore, better understood than is less direct evidence obtained by other methods.

Before a welder starts his job, he must submit test specimens made under field conditions in order to qualify for employment. These samples are X-rayed and if sufficiently sound, the welder is certified for the job. This does not mean that the man will not have his off days where he is turning out poor quality welds. The human element cannot be eliminated from welding practice. It is, therefore, necessary to check up on the finished work.

SHOP CONTROL

Where X-ray inspection is used in routine testing, the metallurgist, foreman, or other responsible party may use the exographs for the purpose of checking the work of individual welders and also the work of the shop as a whole. In this way weld quality may be kept to predetermined standards.

When a new welding rod has to be selected, welded joints made of the various rods under consideration should be made by one and the same welder, using identical technique. The soundest joint indicates the best suited material.

FIELD INSPECTION

If possible routine inspection of all welded joints should be made. It is preferable to do this work at night when no other work is going on. Under certain circumstances not all of the joints can be X-rayed. A very important point in favor of radiographic inspection is the psychological effect on the welder. If told that his work is subjected to X-ray inspection, he is much more careful and tries to do the best he can to produce sound joints.

The principal undesirable conditions in welded joints revealed by radiographic examination are the following:

(1) No penetration, that is, improper fusion at scarfs between weld and parent metal. (This defect shows up as a fine line in the exograph and corresponds to a hair crack.) Laps not fused between layers of weld metal. No penetration and laps are usually characterized by slag inclusions, which may be actually slag but are mostly a fine skin of oxide. (See *Figures 1* and *2*.)

(2) Gas inclusions more or less numerous throughout the weld zone. Naturally, some minor defects are apt to occur. If they happen too frequently, they must be removed and the joint repaired.

(3) Shrinkage cracks, developed during or after welding. Shrinkage cracks occur seldom.

The matter of interpreting the results is probably the most important and at the same time the most difficult problem. Only long experience will assure the correct judgment. Just to give a few examples on how this work is done, we demonstrate the exposure arrangement on some typical joints.

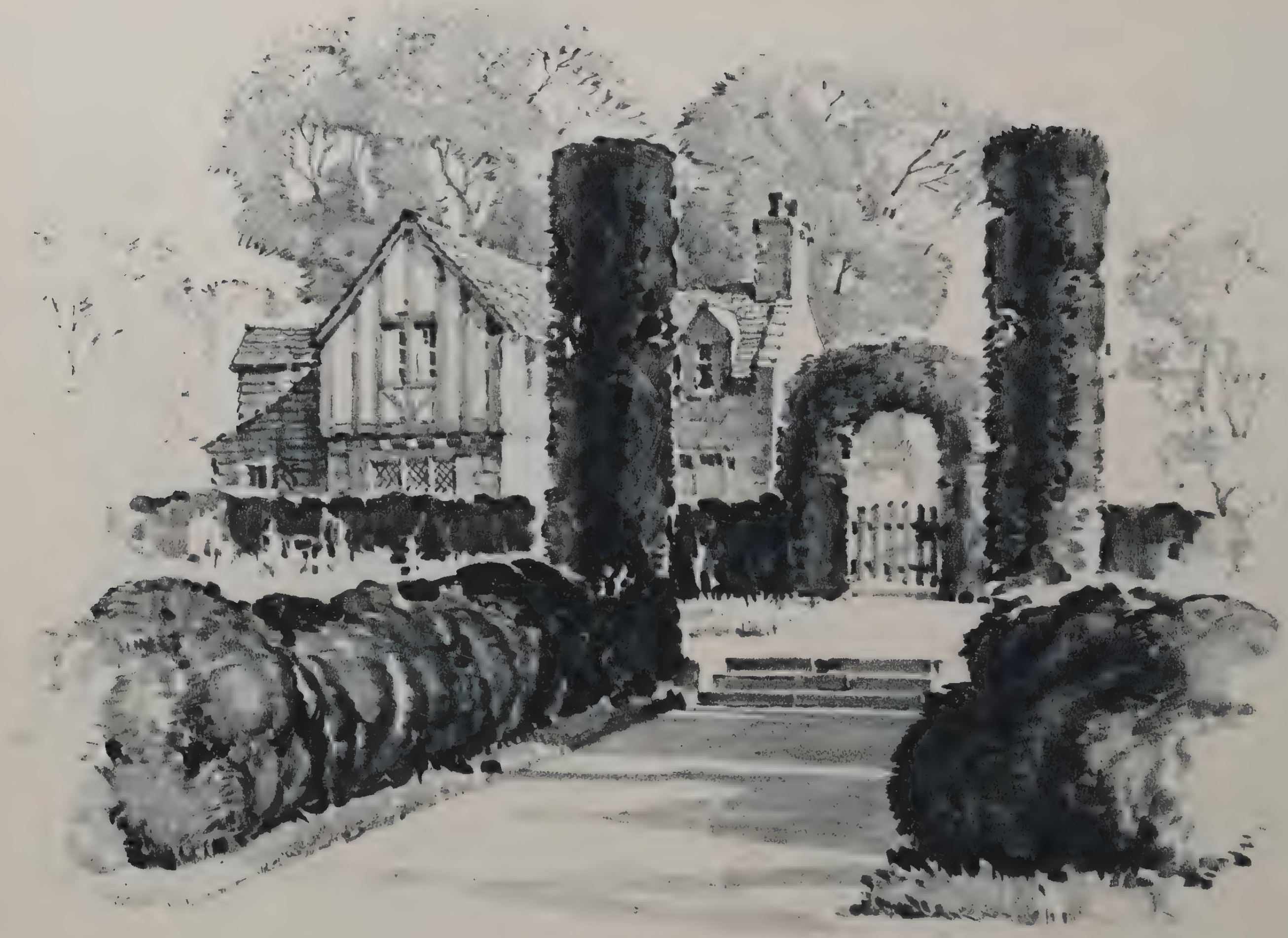
Figure 3, a double-fillet-welded Tee joint. Two exposures are required, one for section A and another for section B. In each case the X-ray tube is on one side of the material under investigation and a photographic film on the opposite side. In the sketch the appearance of relative points in the weld are marked numerically and their respective position in the shadow picture indicated on the film. The second exposure which is not shown here would show up points B_4, B_3, B_2, A_4 and A_1. In that way we not only detect any possible defects, but will obtain two views from entirely different angles which is a help for locating the defects.

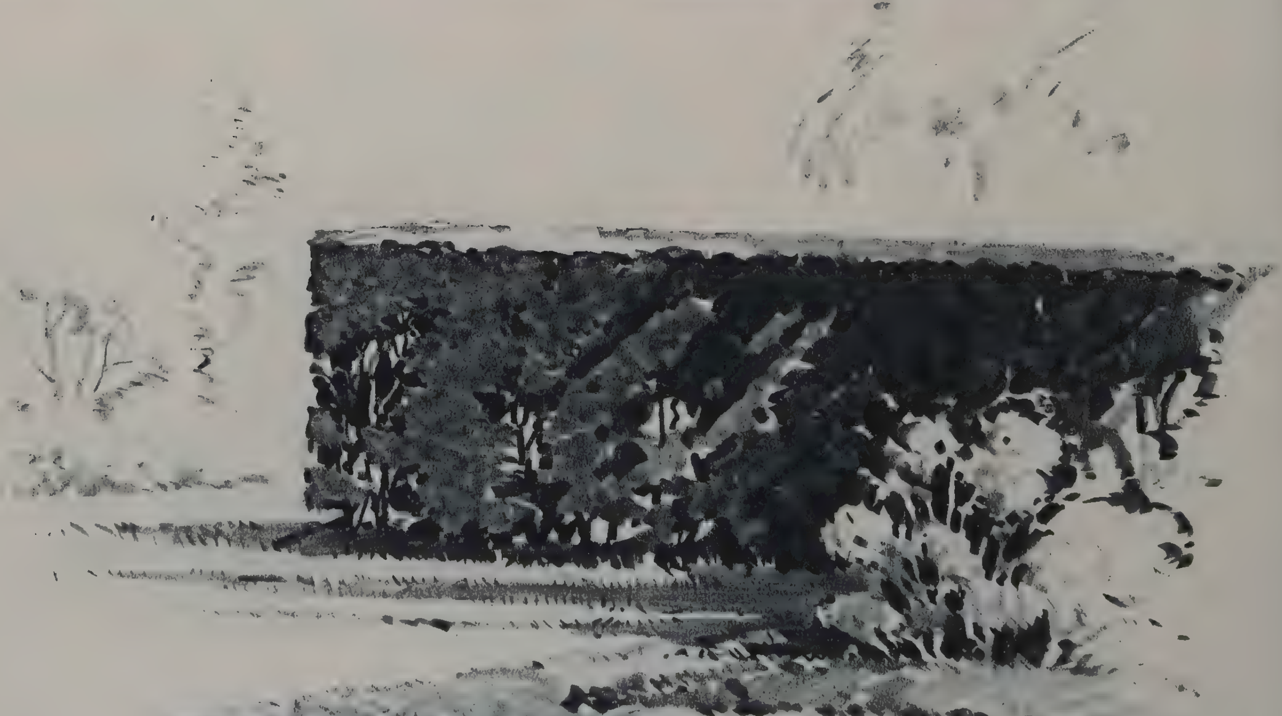
Interpretation becomes more complicated on a section as depicted in *Figure 4*. In this case two exposures are required from four different sections, or eight exographs on this one joint. Compared to this, a box column construction with four joints on each corner seems to be simple. *Figure 5* shows that only two exposures are required to cover.

These few examples will be sufficient to prove the importance of X-ray inspection for the welding designer and the architect. An equally important point is the value of such a nondestructive test to the owner of the building to whom it is, indeed, a most instructive test.

It is predicted that in the near future butt-welded joints will replace fillet designs in most cases. This will facilitate not only the welding procedure but also our X-ray technique and will simplify the interpretation of exographs of welded joints.

VIEW AT GAVERNIE, PYRENEES





LESSON 10—INDICATION OF EVERGREEN SHRUBBERY

PENCIL BROADSIDES—10

BY THEODORE KAUTZKY

Dark accents in the landscape settings for architecture are frequently furnished by shrubs and hedges of yew, box, and other hardy evergreens. Sometimes these are clipped and sometimes they are left to take their natural forms but in any case they constitute a special problem for the artist or delineator. Their close, compact growth and their dark tones make them conspicuous elements in the picture in which they occur. They must therefore be drawn with care and sufficient naturalness.

The sketch at the top of the accompanying plate shows a suburban house of common enough type with a setting of rather formal planting. The most prominent features of this landscape are a thick box hedge in the foreground and some clipped evergreen tree forms which might well be English yew, or perhaps cedar. Nearer to the house is a hedge with an evergreen arch framing the garden gate. The dark values of these elements outweigh any other dark tone in the composition. To render them properly will call for heavy pressure with your 4B pencil properly sharpened to produce clean broad strokes.

As a preliminary to tackling the problem presented by this sketch or one of your own composition involving similar elements, I advise (as I have done before) that you go outdoors and look at some actual examples of box, yew, cedar, and other evergreens. Observe the bubbling forms of the box, its texture, the way the light falling upon it models its shape and reflects from the portions in full sunlight, making almost highlights. Notice in the cedars how there are occasional gaps in the otherwise close growth, through which you can see bits of branch, or even the sky. Mark particularly the silhouette, whether or not the specimen is clipped, standing with more or less irregularity against lighter areas beyond. See how the contrast of dark against light gives the illusion of an aura extending along the line of separation. Get all these impressions firmly in your mind and then come in and go to work.

In drawing the box hedge shown on the facing page, I have used several types of broad strokes, which have, however, but two general purposes. One group of strokes serves to define and model the general forms while the other is directed to the expression of texture. The former are rather long, curving strokes, sometimes wavy, and they follow the contours of the bushes quite clearly. Their variations in tone are calculated to indicate the play of direct and reflected light across the interlacement of globular surfaces which characterize this plant. The other set of strokes are short and multi-directional. They may be seen most distinctly on the nearest bush at the left. The suggestion of leafage which these convey is strong enough to carry the impression through the whole length of the hedge, especially when reinforced by the wavy or zig-zaggy strokes of the first category. I have let the white paper show through here and there to express the highlights that occur where the sun reflects from the shiny foliage at the proper angle. Note that, though the general tone of the whole is dark, there is plenty of variety, as there would be in nature. Even in the blackest shadows the density is not complete.

The tall, clipped trees are modeled as cylinders, with reflected light bringing out the roundness of the shadow side. Here, too, I have used a number of short strokes running in many different directions and also have taken particular pains to accent and properly portray the irregular silhouette. The same remarks apply to the hedge and gate beyond. Note throughout the sketch that I have left a thin though irregular strip of white paper along the top and lighted sides of these evergreen forms. This helps the general sunny effect of the sketch and accords with truth. The hedge at the bottom of the plate is intended to be privet, which may not be, strictly speaking, an evergreen. It is rendered with a great many short strokes, laid closely in all directions. I have been careful to define the silhouette in character with the plant and have left a number of irregular openings in the foliage through which some of the stems and twigs may be seen. This makes a more interesting and none the less truthful picture than if I had assumed a solid growth of leaves. Longer diagonal strokes, following the direction of light, were used for the shadows, as may be seen.

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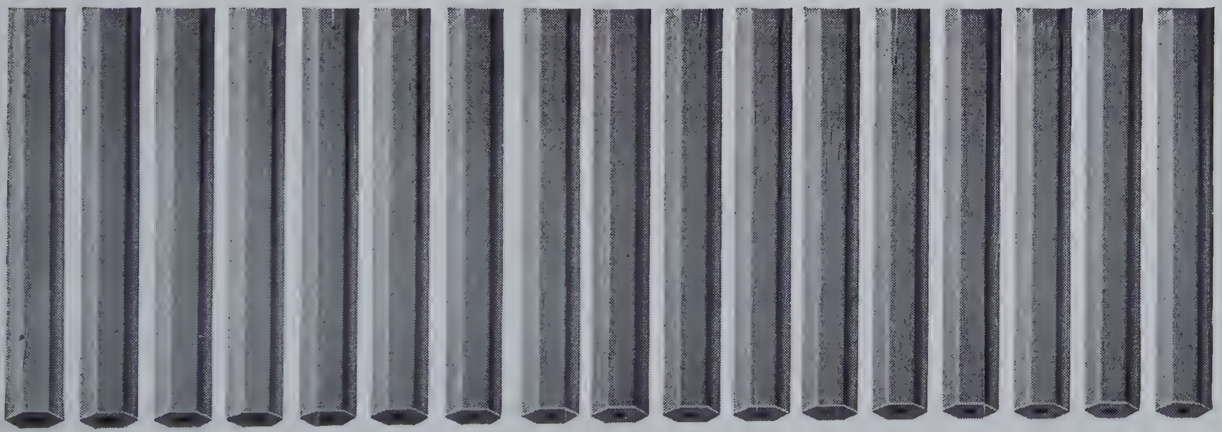

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HUDNUT LECTURES

Four lectures on the relation of building to the contemporary arts, by *Dean Joseph Hudnut*, of the School of Architecture at Harvard University, have been scheduled this month at the Metropolitan Museum of Art in the free Sunday series. Dean Hudnut's subjects are as follows: January 5, "Modern Building and the Decorative Arts"; January 12, "Modern Building and the Art of Sculpture"; January 19, "Modern Building and the Art of Painting"; January 26, "Modern Building and the Art of Gardening."

AVERY LIBRARY

Four exhibitions scheduled at the Avery Architectural Library, Columbia University, have been announced as follows: *The Nineteenth Century Woman's World in Fashion, the Crafts and Decoration*—February 5-February 28; *Architectural Photographs by Samuel H. Gottscho* — March 5-March 28; *Restorations of Ancient Buildings* — April 2-April 25; *Recent Housing in the United States*—May 1-June 5.

CHICAGO SCHOOL

The School of Design in Chicago, headed by *L. Moholy-Nagy*, has announced that day and evening classes for the Spring semester will begin February 3. *George Fred Keck* heads the Architectural Department, with *Robert Bruce Tague* and *Jan J. Reiner* as Associates. Cooperating with this Department are the Light workshop, headed by *George Kepes;* the Painting workshop, headed by *Robert J. Wolff;* and the Textile department, headed by *Marli Ehrman.* The academic subjects are taught by guest lecturers.

In addition to the regular curriculum, students of the School have worked on the project of rebuilding the School Farm at Somonauk, Ill.

AT LARGE IN THE LIBRARY

An Alphabet Source Book, *by Oscar Ogg ($3.50, 199 pages illustrated, 9½" x 12"—Harper & Brothers, New York).*

Washington Doorways, *by Annabel Paxton ($1.50, 150 pages illustrated, 5" x 8"—The Dietz Press, Publishers, Richmond, Va.).*

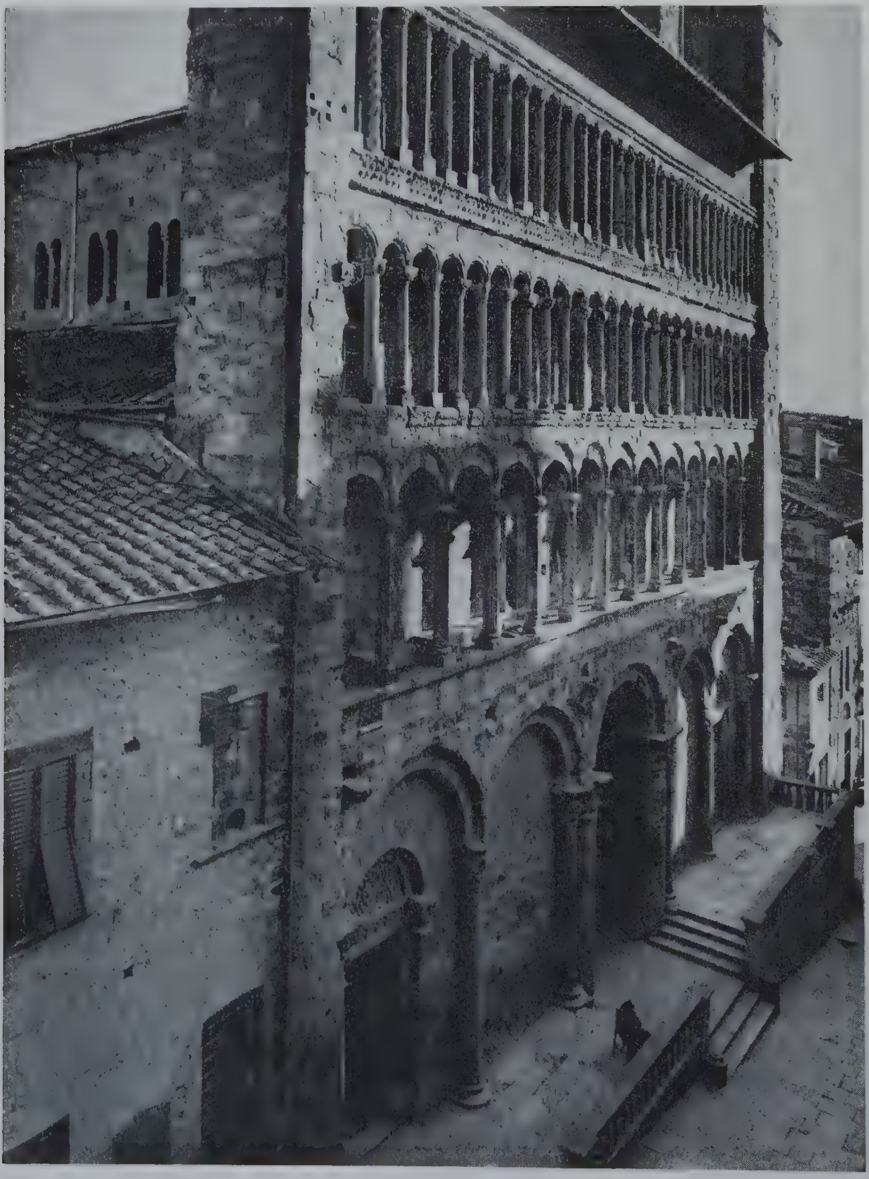
Harvard and Cambridge—A Sketch Book, *by Jack Frost ($1.50, 90 pages illustrated, 7½" x 10"—Coward-McCann, N.Y.).*

Aaron Sopher, *by Forbes Watson (69 pages illustrated, 7½" x 10¾" — Theodore Ember, Baltimore, Maryland).*

The Curse of Modern Taxation, *by W. R. B. Willcox, Architect ($2.00, 140 pages, 5" x 7½"—Fortuny's Publishers, Inc., New York).*

House Planning, *by Wooster Bard Field ($3.00, 271 pages illustrated, 8½" x 11¼"—McGraw-Hill Book Co., Inc., New York).*

Six books received prior to the holidays are not without interest for the architect. They are listed here for the convenience of those who do not—under pressure of year-end office duties and professional demands — find time to visit the stores or even to read book lists carefully. Ogg's volume on the alphabet is a particularly handsome publication and one that will doubtless be treasured by anyone who adds it to his working bookshelf. It is not uncommon to see on otherwise well-handled buildings (not to mention the architect's original drawings) lettering or inscriptions hurting rather than enhancing the design.



This photograph of the façade of Santa Maria Della Pieve, in Arezzo, Italy, is reproduced from one of the full-page plates in Arnold Borsig's handsome volume on Tuscany, now available in New York bookstores at $7.50. The book is 9" x 12" and includes text by Ranuccio Bianchi-Bandinelli as well as a map and 250 photographic studies of the architecture, paintings, sculpture, landscape, agriculture, and people of Tuscany

NEWS-FACTS
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Published by the UNITED STATES GYPSUM COMPANY, 300 West Adams Street, Chicago

Vibration and Noise Problem Solved in Development Near R. R. Tracks

WILMETTE, ILL.—Oddly enough, the same convenience to transportation which makes a new group of houses in Wilmette so attractive might have been a formidable drawback had it not been for USG Plastering Systems. The many trains passing by daily on nearby tracks might easily set up vibrations strong enough to crack the finish plaster as ordinarily applied. However USG Resilient Rocklath ceilings and Bridjoint walls reduce the effects of noise and vibrations, and has made it possible to place 39 charming homes in a location which would otherwise have been condemned as unsuitable.

Vibration is not the only cause of cracked plaster which is overcome by the floating construction of Resilient ceilings and the unique handling of end joints in Bridjoint construction. Settling of foundations, warping and twisting of framing also result in plaster cracks in a large percentage of frame buildings. USG Plastering Systems minimize such cracks. These Wilmette homes will not have streaked ceilings, either.

Although this issue of News-Facts describes only three applications of USG Resilient Plastering Systems to wood framing, other types are also available. All the advantages of the Resilient construction can be obtained for installation over furring, steel studs, masonry, suspended ceilings. Metal lath, too, can be used in place of Rocklath.

"NEWS-FACTS" Makes Bow

This is the first in the series of four-page inserts to appear in PENCIL POINTS. With thousands of building products to choose from, we think we owe it to busy architectural men to make the understanding of USG building products as simple and practical as we can.

We want to pack these four pages full of pertinent NEWS and useful FACTS. News items will show how USG materials and research are contributing to the nation's need for good construction, combined with economy and speed. Through the media of drawings, specifications and concise descriptions we hope to make it easy for you to make a confident selection of USG products, and to then detail and specify their installation.

We welcome correspondence. Address the Editor of News-Facts, Dept. 122, 300 West Adams Street, Chicago.

U S G MEN OFFER SERVICE

Manufacturers' representatives who call on architects must not only know their own products but must have an understanding of architectural problems if they are to be welcome in the architectural office. USG has a service staff of over 500 men—trained in the skilled and economical use of today's better and safer building materials.

Whether it is a matter of construction or of specification writing, these men are always eager to be of assistance to you. Architectural specification writers need have no fear that job mechanics will have difficulty using USG methods or materials because a USG field representative will be glad to go to the job to instruct the workmen in the most economical and speedy methods of installation.

Boy! Has this Rocklath got Suction?!!*

MATERIALS SPEED DEFENSE

FORT BENNING, GA.—USG Gyplap is helping Uncle Sam prepare army camp buildings almost 5 times as fast as ordinary sheathing could! Barracks at Fort Benning are now going up for the 2nd Armored Division. The use of USG Gyplap sheathing has enabled each workman to average 2400 square feet per 8-hour day! A good average per man for diagonal wood sheathing is 500 square feet per day! Gyplap not only goes up fast but it is fireproof along with all its other well-known advantages. Seven out of 10 army camp barracks are Gyplap-sheathed!

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*U. S. Bureau of Standards tests show a bond of 864 lbs. per sq. ft. between Rocklath and plaster.

A. I. A. FILE No. 20

Lathing Specifications

A. I. A. FILE No. 20

NOTE—Use only the paragraphs which are applicable. Notes in small type are explanatory and are not a part of the Specification. Additional copies of this Specification will be gladly supplied on request—to be used for interlining and crossing out in preparing copy for typing.

1. GENERAL CONDITIONS. The current edition of the A. I. A. General Conditions are part of this Specification.

2. WORK INCLUDED. This Section comprises the application of Resilient Rocklath ceilings to *(. . . identify ceiling areas . . .)*, and the application of *(. . . Resilient, Bridjoint or Nail-on . . .)* Rocklath walls to *(. . . identify wall areas . . .)*, as hereinafter described and specified. Plastered wall, ceiling or roof areas which separate heated spaces from unheated spaces or from the outdoors are to be lathed with Insulating Rocklath. Lath all other areas with (. . . *standard or Perforated* . . .) Rocklath.

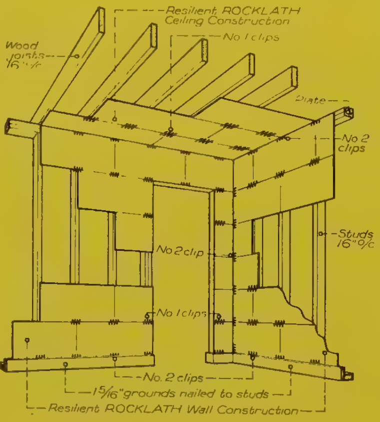
On the last page of this folder will be found a complete description of Nail-on, Bridjoint and Resilient construction.

3. WORK NOT INCLUDED. *(. . . List all wall and ceiling areas which are unfinished or to receive other finish . . .).*

4. MATERIALS. Use clips and ⅜" x 1'—4" x 4'—0" Rocklath made by the United States Gypsum Co., Chicago.

5. APPLICATION IN GENERAL. The installation procedure recommended by the manufacturer must be followed exactly. If workmen are employed who are unfamiliar with the method of installation specified the Architect will, upon request of the Contractor, secure the services of a United States Gypsum Company field representative to instruct mechanics at the job.

6. RESILIENT WALLS AND CEILINGS. Nail a No. 2 clip to each stud at ceiling-wall angle. Butt clips to the underside of joists where joists run at right angles to wall and line clips on other 2 sides to same level. Run ceiling courses at right angles to joists. Start ceiling construction in a corner of the room by engaging the edge of the Rocklath in the No. 2 clips. Place No. 1 clips at free edge of Rocklath and nail clips to side of joists. Work from opposite sides of the room so that by bending the clip prongs the last course can be swung into place and the prongs bent back.


Resilient ROCKLATH Ceiling Construction
No 1 clips
Wood joists 16" o/c
Plate
No 2 clips
Studs 16" o/c
No 2 clip
No 1 clips
No. 2 clips
1 5/16" grounds nailed to studs
Resilient ROCKLATH Wall Construction

Install top course of Rocklath on walls by placing top edge into the prongs of the No. 2 clips and then securing Rocklath at all studs with (. . . *No. 1 or No. 4* . . .) clips nailed to each stud.

Apply 2 courses of Rocklath from ceiling downward. Then nail a No. 2 clip to each stud butting the clip to the base ground. Place (. . . *No. 1 or No. 4* . . .) clips over the upper edge of the lower course and nail clips to each stud.

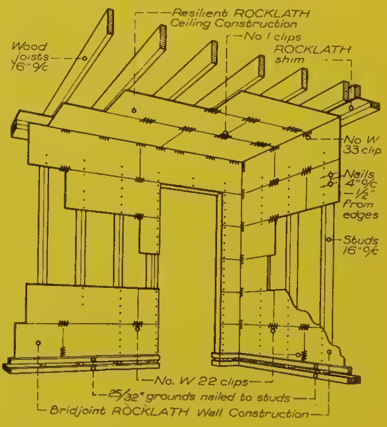
Nailing of the No. 1 clips is to the side of stud. Where the stud spaces are filled with wool insulating material a No. 4 clip which is face nailed should be used instead of the No. 1.

Continue with successive courses upward in a similar manner, breaking all end joints. To fit the last wall course of Rocklath into place, bend the prongs of the clips outward so that the Rocklath can be swung into place and the prongs then bent back.

6. RESILIENT CEILINGS AND BRIDJOINT WALLS. Install a ⅜" thick strip of Rocklath not less than 3" wide to the bottom of the joists at the ceiling angle entirely around the ceiling area. First place W33 corner clips 16" o/c along the top of the first board. Lift the first board into place and push the tops of the clips firmly against the bottom of the Rocklath strip. Nail the board near the bottom edge with 2 nails 4" o/c at each stud.

The foregoing paragraph does not allow the edges of the ceiling to "float," since the edge is in solid contact with the framing. If it is desired to have the edges of the ceiling fully resilient, use the following paragraph instead of the one immediately above.

Place No. 2 clips 16" o/c with prongs down at the ceiling-wall angle. Engage the top edge of the boards in the clips and nail the board near the bottom edge with 2 nails 4" o/c at each stud.


Resilient ROCKLATH Ceiling Construction
No 1 clips
ROCKLATH shim
Wood joists 16" o/c
No W 33 clip
Nails 4" o/c —½" from edges
Studs 16" o/c
No. W 22 clips
25/32" grounds nailed to studs
Bridjoint ROCKLATH Wall Construction

Place wall boards so ends fall between studs. Work down from the ceiling toward the floor, breaking end joints in successive courses. Nail Rocklath 4" o/c vertically at every stud bearing. Use No. W22 Bridjoint clips so that every intersection of a vertical and a horizontal joint will be supported by a clip.

Run ceiling courses at right angles to joists. Start the ceiling construction in a corner of the room by engaging the edge of the Rocklath in the clips at the ceiling-wall angles. Next place No. 1 clips at the free edge and nail clips to joist. Work from opposite sides of the room so that by bending the clip prongs the last course can be swung into place and the prongs then bent back.

6. RESILIENT CEILINGS & NAIL-ON WALLS. Install a ⅜" thick strip of Rocklath not less than 3" wide to the bottom of the joists at the ceiling angle entirely around the ceiling area. Place W33 corner clips 16" o/c along the top of the first board. Lift the first board into place and push the tops of the clips firmly against the bottom of the Rocklath strip. Nail the board near the bottom edge with 2 nails 4" o/c at each stud.

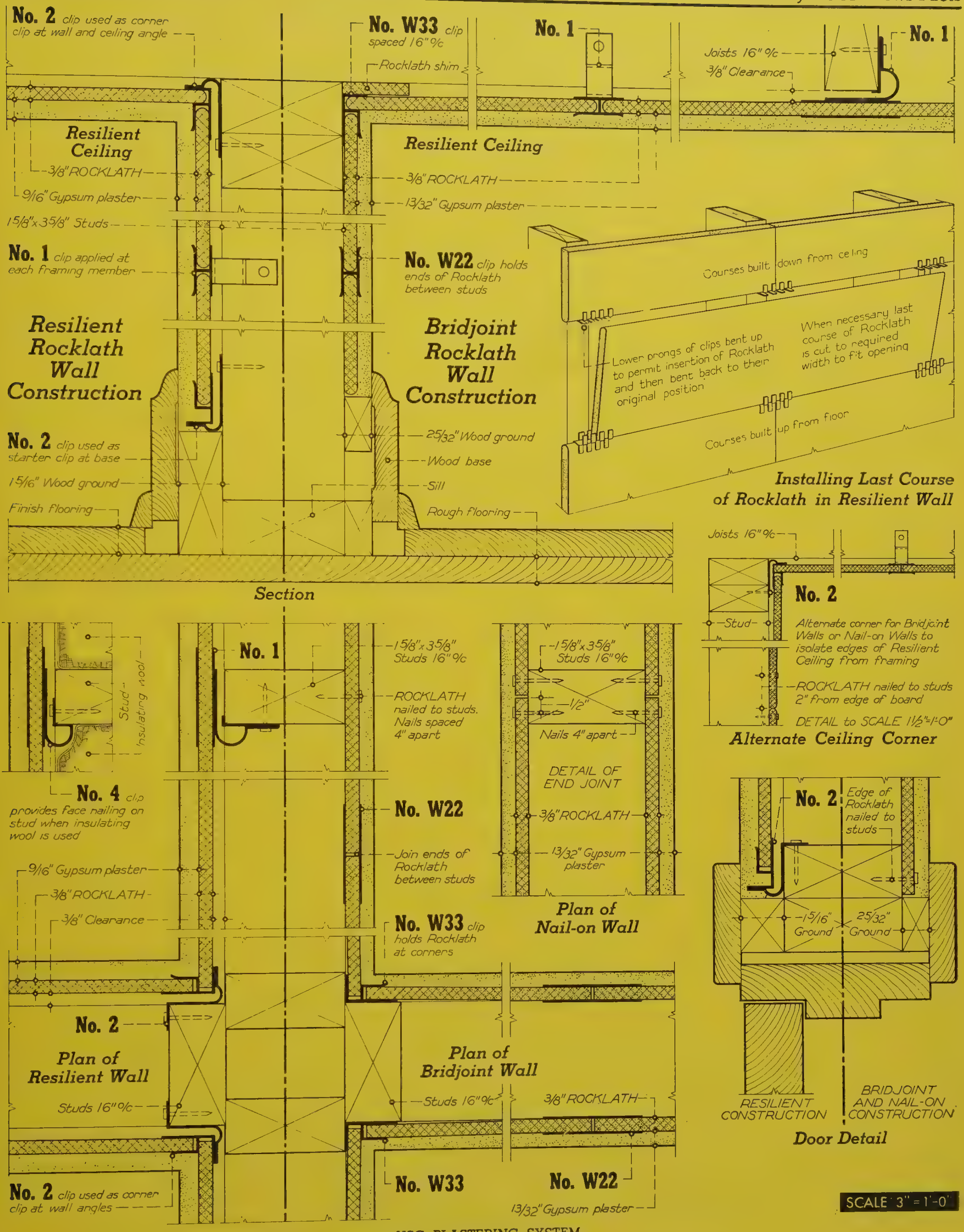
The foregoing paragraph does not allow the edges of the ceiling to "float," since the edge is in solid contact with the framing. If it is desired to have the edges of the ceiling fully resilient, use the following paragraph instead of the one immediately above.

Place No. 2 clips 16" o/c with prongs down at the ceiling-wall angle. Engage the top edge of the boards in the clips and nail the board near the bottom edge with 2 nails at each stud.

Place the boards so that the abutting end joints are broken and occur on studs. Nail Rocklath at ends with 5 nails and all intermediate bearings 4" o/c vertically.

Run ceiling courses at right angles to joists. Start the ceiling construction in a corner of the room by engaging the edge of the Rocklath in the clips at the ceiling-wall angle. Next place No. 1 clips at the free edge and nail clips to joists. Work from opposite sides of the room so that by bending the clip prongs the last course can be swung into place and the prongs then bent back.

Under Carpentry specify studding and joists 16" o/c; specify grounds as detailed at the right.


No. 2 clip used as corner clip at wall and ceiling angle
Resilient Ceiling
3/8" ROCKLATH
9/16" Gypsum plaster
1 5/8"x3 5/8" Studs
No. 1 clip applied at each framing member
Resilient Rocklath Wall Construction
No. 2 clip used as starter clip at base
1 5/16" Wood ground
Finish flooring
No. W33 clip spaced 16" o/c
Rocklath shim
No. 1
Resilient Ceiling
3/8" ROCKLATH
13/32" Gypsum plaster
No. W22 clip holds ends of Rocklath between studs
Bridjoint Rocklath Wall Construction
25/32" Wood ground
Wood base
Sill
Rough flooring
Section
Joists 16" o/c
3/8" Clearance
No. 1
Courses built down from ceiling
Lower prongs of clips bent up to permit insertion of Rocklath and then bent back to their original position
When necessary last course of Rocklath is cut to required width to fit opening
Courses built up from floor
Installing Last Course of Rocklath in Resilient Wall
Joists 16" o/c
Stud
No. 2
Alternate corner for Bridjoint Walls or Nail-on Walls to isolate edges of Resilient Ceiling from framing
ROCKLATH nailed to studs 2" from edge of board
DETAIL to SCALE 1 1/2"=1'-0"
Alternate Ceiling Corner
Stud - insulating wool
No. 4 clip provides face nailing on stud when insulating wool is used
9/16" Gypsum plaster
3/8" ROCKLATH
3/8" Clearance
No. 1
1 5/8"x3 5/8" Studs 16" o/c
ROCKLATH nailed to studs. Nails spaced 4" apart
No. W22
Join ends of Rocklath between studs
No. W33 clip holds Rocklath at corners
1 5/8"x3 5/8" Studs 16" o/c
1/2"
Nails 4" apart
DETAIL OF END JOINT
3/8" ROCKLATH
13/32" Gypsum plaster
Plan of Nail-on Wall
No. 2
Plan of Resilient Wall
Studs 16" o/c
No. 2 clip used as corner clip at wall angles
Plan of Bridjoint Wall
Studs 16" o/c
3/8" ROCKLATH
No. W33
No. W22
13/32" Gypsum plaster
No. 2
Edge of Rocklath nailed to studs
1 5/16" Ground
25/32" Ground
RESILIENT CONSTRUCTION
BRIDJOINT AND NAIL-ON CONSTRUCTION
Door Detail
SCALE 3" = 1'-0"

USG PLASTERING SYSTEM

ROCKLATH ON WOOD FRAMING

USG Plastering Systems

The drawings and specifications on these pages describe 3 types of construction which employ USG plastering systems. These systems have been developed to produce plastered wall and ceiling construction which combines economy and speedy erection with other desirable advantages not found in conventional construction. The systems described make use of Rocklath as a plaster base.

Rocklath Characteristics

Varieties. Rocklath is in the form of boards made of gypsum encased in a tough, fibrous covering. Extreme care in the control of production results in a product of known and uniform quality. Rocklath is available 1′–4″ x 2′–8″ and 1′–4″ x 4′–0″, ⅜″ thick. Three types are manufactured as follows:

Standard Rocklath
Perforated Rocklath
Insulating Rocklath

These products are identical except that the Perforated Rocklath provides a mechanical bond by means of regularly spaced perforations, and Insulating Rocklath has a thin smooth sheet of bright aluminum foil mounted on one side. Applied with the foil side next to the frame and facing a dead air space Insulating Rocklath provides insulation equivalent to that of ½″ fiber insulating board.

Use standard or Perforated Rocklath for interior partition and ceiling surfaces, combined with Insulating Rocklath on framing which is subjected to a temperature difference.

Incombustible. Rocklath provides a continuous fireproof sheet over the entire wall and ceiling area which helps to confine fire to the room in which it originates.

Inactive. Rocklath does not expand, warp or buckle when wet plaster is applied over it; consequently it will not shrink and cause cracks when the plaster dries.

Bond. In U. S. Bureau of Standards tests, a pull of 6 lbs. per sq. in. (864 lbs. per sq. ft.) was required to separate plaster from standard Rocklath, providing a safety factor of 144.

Moisture. The ⅜″ of gypsum seals off the moisture of the fresh plaster from the frame and thus prevents the swelling and subsequent shrinking of wood members.

Resilient Ceilings

The USG Resilient Plastering System permits Rocklath to be attached to wood joists by means of spring clips to form a "floating" ceiling. This construction performs three functions. *First,* it minimizes plaster cracks resulting from frame movement; *second,* it eliminates lath and joist marks; *third,* it reduces sound transmission.

Spring clips take up and absorb structural displacement strains caused by moisture, settlement or vibration. The USG Rocklath itself cannot change as a result of the application of wet plaster.

The pattern of wood lath and framing on walls and ceilings appears because the plaster is warmer where it touches wood, cooler between. Air borne moisture and dust clings to the cool areas. Resilient construction holds the plaster away from the wood framing, providing more uniform temperatures and making streaks less likely to appear.

In rigid construction sound vibrations are transmitted to the framing and through the ceiling. In Resilient construction the clips dampen the vibration, reducing the intensity of the sound passing through the ceiling.

Resilient Ceilings and Resilient Walls

Resilient construction on the walls—as well as the ceilings—is particularly desirable when the transmission of sound from adjacent rooms is a problem.

Resilient Ceilings and Bridjoint Walls

The combination of Resilient ceilings with Bridjoint walls is especially recommended for *all usual occupancies.*

In ordinary construction the displacement of a stud will stress the weakest point in the lathing—at the meeting of end joints. In Bridjoint wall construction the ends of the Rocklath units come *between* the supports and *not on them.* The end joints are reinforced by Bridjoint clips—eliminating joints at the supports and minimizing the cracking of the finished plaster.

The Rocklath at corners and at ceiling angles is not nailed to the framework but is reinforced with Bridjoint corner clips. This prevents the transmission of stresses at these points to the lath and plaster and eliminates strain cracks. The Bridjoint System saves the cost of metal lath corner reinforcement and the labor of applying it.

All odd lengths of the Rocklath can be used. Since nailing is not necessary at the ends of the boards, 25 per cent fewer nails are required.

Resilient Ceilings and Nail-on Walls

The combination of advantages obtained by combining Resilient ceiling construction with Nail-on wall construction results in the greatest economy consistent with dependability.

UNITED STATES GYPSUM PRODUCTS

USG PLASTERING SYSTEMS. Construction methods for applying Rocklath or Metal Lath to wood frame, steel or masonry, to reduce sound transmission and to minimize plaster cracks and joist streaking.

SHEETROCK. Fireproof Gypsum panel material for dry wall construction to receive paint, wall paper or any other decoration. Also available predecorated.

WEATHERWOOD. A panel material combining construction, insulation and sound deadening with interior finish.

PAINT. New Principle interior paints which are quick drying, light reflecting, free from objectionable odor, cleanable. They have high coverage and high opacity. Also primer and cold water paints and paints for exterior and interior masonry surfaces.

TRUSSTEEL STUDS. A system of light weight hollow steel partition framing, for speedy erection and non-inflammability.

INTERIOR PLASTER AND STUCCO. Fifty varieties including the famous Red Top Plaster, for every building need.

PLASTER BASES. A complete line of standard metal laths, gypsum lath, metal accessories and light weight economical Pyrobar gypsum partition tile.

ACOUSTIC MATERIALS. Tile, metal tile, board, and plaster products for controlling reverberation and quieting sound.

THERMAL INSULATION. Board, blanket, loose fill and reflective types.

ROOFS, FLOORS AND PARTITIONS. Pre-cast and poured gypsum slabs, and ribbed steel decks for roofs and floors. Gypsum block for partitions and fireproofing.

SIDING. Asbestos cement siding in a variety of colors, also with self-cleaning Glatex surface.

SHINGLES. Asphalt and asbestos cement shingles in a variety of styles and colors.

SHEATHING. An insulating board type in addition to Gyplap, the fireproof gypsum board sheathing.

UNITED STATES GYPSUM COMPANY
300 West Adams Street
Chicago, Illinois

Sales Offices

Albany, N. Y.............1106 National Savings Bank Bldg.
Atlanta, Ga..............1726 Candler Bldg.
Baltimore, Md..............Court Square Bldg.
Birmingham, Ala..............1203 Comer Bldg.
Boston, Mass...505 Statler Office Bldg., 20 Providence St.
Buffalo, N. Y..............1116 Rand Bldg.
Charlotte, N. C..............1013 Liberty Life Bldg.
Chicago, Ill..............300 West Adams St.
Cincinnati, Ohio..............3015 Carew Tower
Cleveland, Ohio..............627-629 Hanna Bldg.
Dallas, Tex.............30½ Highland Pk. Shopping Village
Denver, Colo..............836 Continental Oil Bldg.
Detroit, Mich..............7310 Woodward Ave.
Houston, Tex..............2030 Commerce Bldg.
Indianapolis. Ind.....1015 Architects' and Builders' Bldg.
Kansas City, Mo..............4638 Mill Creek Pkwy.
Los Angeles, Calif..............807 Architects Bldg.
Milwaukee, Wis..............(At Mill) 439 W. Oregon St.
Minneapolis, Minn..............2510 Foshay Tower
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Pittsburgh, Pa..............1905 Commonwealth Bldg.
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St. Louis, Mo..............8032 Forsyth Blvd.
Salt Lake City, Utah..............Dooly Bldg.
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Seattle, Wash..............1001 Textile Tower
Washington, D. C...Investment Bldg., 15th and K Sts., N. W.

Samson Plaster Board Company
Sales Agents for United States Gypsum Company
Crosby Building, Buffalo, N. Y.

Remember what G-E started when it turned the oil flame upside down?

Back in 1927 General Electric began its first research into automatic heat . . . was quickly convinced there was real need for improvement. Five years of Research followed.

Then G-E introduced many revolutionary improvements now taken for granted. One is The Inverted Flame . . . the flame that burns upside down.

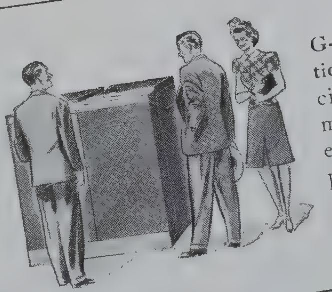
In the G-E furnace, fuel is forced *downwards* through a mixing chamber in which compressed air atomizes each drop of oil into 100 million particles. This vaporized mixture burns in a conical shape and turns upon itself so that the gas vapor burns completely. Result: owners report 25% to 50% savings on fuel costs.

Untiring Research is continually improving each product in the complete heating and air conditioning line. For full details see Sweet's $\frac{26}{10}$, or write to General Electric, Div. 113, Bloomfield, New Jersey.

TURN TO

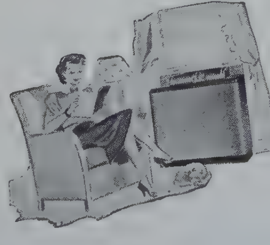
. . . for the complete line of Heating and Air Conditioning

G-E Oil Furnaces—(steam, hot water, vapor) seven different sizes for various heating capacities. Year 'round domestic hot water coil optional. Also a complete line of *G-E Gas Furnaces*.

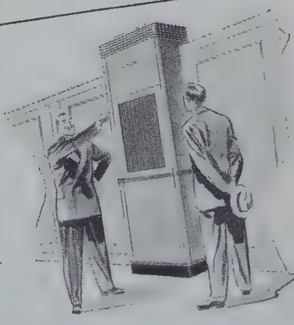


G-E Winter Air Conditioners—(oil or gas fired) circulate warm, clean, moistened air. Highly efficient. A single switch provides circulation in summer. Cooling equipment can be added.

Compact G-E Units—for cooling a single room, a group of rooms, for conditioning the whole house . . . or commercial buildings. Unusually quiet in operation. Also a complete line of Air Circulators.

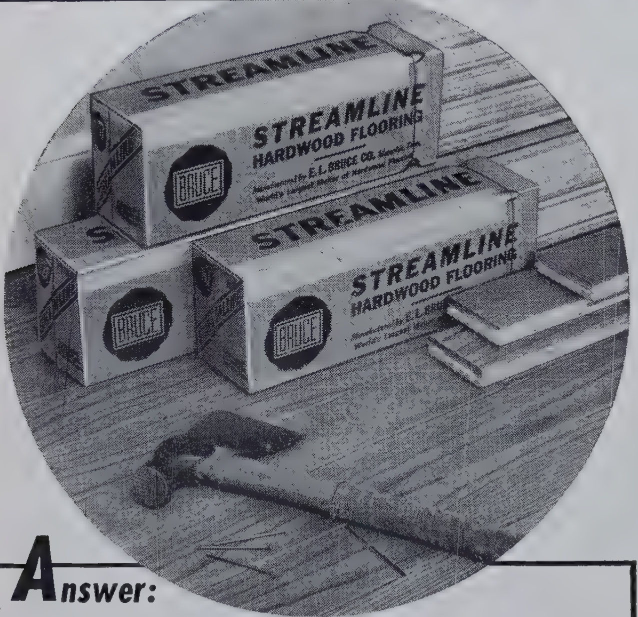


G-E Unit Air Conditioners—for low-cost air conditioning in shops, restaurants, offices, etc. Complete range of sizes. Low in cost. Easily installed, little or no duct work needed.



GENERAL ELECTRIC

Question:
WHAT FLOORING GIVES "EXTRAS" AT NO EXTRA COST?


STREAMLINE
STREAMLINE HARDWOOD FLOORING
BRUCE
Manufactured by E. L. BRUCE CO. Memphis, Tenn.
World's Largest Maker of Hardwood Flooring

Answer:
STREAMLINE
FACTORY-FINISHED
For Beauty—Durability—Economy

● Clients always approve when you specify Bruce Streamline Floors. And why wouldn't they! They're getting extra beauty, a superior finish—at no extra cost. Bruce STREAMLINE Flooring is finished at the factory by tested, scientific finishing methods. The famous "Bruce-Way" Finish penetrates the wood . . . doesn't scratch, chip or peel like ordinary surface finishes. Bruce STREAMLINE Flooring comes in wide strips with graceful beveled edges that give an expensive plank floor effect. Yet it costs no more—often less than ordinary hardwood flooring finished on the job.

Bruce STREAMLINE Flooring comes in two sizes —25/32" x 3¼" and ½" x 2½" in Oak, Beech or Maple. Learn more about Bruce STREAMLINE . . . the modern hardwood flooring that's finished *at the factory!* Mail coupon for illustrated literature and free scratch test panel now.

Make This Scratch Test

"BRUCE-WAY" SURFACE FINISH

Send for this scratch test panel. Half is finished the new "Bruce-Way" used on STREAMLINE flooring—other half finished the ordinary surface way. Scrape a coin across both finishes. See how the ordinary surface finish scratches and chips away, while the "Bruce-Way" finish is unharmed.

BRUCE **E. L. BRUCE CO.**
1404 Thomas Street, Memphis, Tennessee

FREE OFFER Mail Coupon

E. L. BRUCE CO., 1404 Thomas St., Memphis, Tenn.
GENTLEMEN: Please send FREE Scratch Test Panel and new illustrated literature on Bruce Streamline Flooring.
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City.............................. *State*............

SERVICE DEPARTMENTS

THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale or desiring to purchase books, drawing instruments, and other property pertaining directly to the profession or business in which most of us are engaged. Only those items will be listed for sale which we can no longer supply from our own stock. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed free of charge.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions.

SPECIAL NOTICE TO ARCHITECTS LOCATED OUTSIDE OF THE UNITED STATES: Should you be interested in any building material or equipment manufactured in America, we will gladly procure and send, without charge, any information you may desire.

Notices submitted for publication in these Service Departments must reach us before the twelfth of each month if they are to be inserted in the next issue. Address all communications to 330 West 42nd Street, New York.

THE MART

WANTED: A copy of *Architec-tonics, The Tales of Tom Thumtack, Architect*, published by William T. Comstock Company, 1914. State price and condition of book. Communicate with Miss Flagg, care of PENCIL POINTS.

We will pay 35c per copy, plus postage, for copies of the May and June, 1940, issues of PENCIL POINTS. Must be in good condition. Subscription Department, care of PENCIL POINTS.

TO SUBLET: At rate of $1,300 per annum until April 30, 1941, 26th floor of 22 East 40th Street, New York, corner office with unobstructed eastern and southern exposure, drafting room with northern exposure. This suite is now being shared by two other well known architects, each having their private office with common reception room. Call Mr. Cronin of the Real Estate Department of the Bankers Trust Company, New York.

WILL SHARE: Established New York architect will share his office with an architect. Reasonable rent, good opportunity. Phone MUrray Hill 2-3360.

Jack H. Landes, 2934 N. Kilbourn Avenue, Chicago, Ill., has the following books for sale: *Practical Mechanics and Strength of Materials*, C. W. Leigh; *A Treatise on Masonry Construction*, Baker; *Handbook of Building Construction*, Hool & Johnson; *Structural Problems*, Young; *Dictionary of Classical Antiquities*, Swan Sonnenshein & Co.; *The Story of Architecture in America*, T. E. Tallmadge; *Gothic Architecture Selected from Various Edifices in England*, Pugin; *Architectural Drawing*, W. B. Field; *The House Beautiful Building Annual*, 1926; *Architectural Shades and Shadows*, H. McGoodwin; *Architectural Shades and Shadows*, Shelton.

L. Percival Hutton, Winter Park, Florida, has the following books for sale, all in good condition: *Japanese Homes and Surroundings*, Edw. S. Morse, 4th edition; *Early American Churches*, Aymar Embury; *Modern Farm Buildings*, Alfred Hopkins.

(Continued on page 40, Advertising Section)

Cans TO HOLD THE BOUNTY OF A NATION

A few years ago only the few could afford vegetables out of season. Today vegetables in sanitary tin cans bring their healthful vitamins the year 'round to every family in the land, at trifling cost.

Every year America uses *ten billion* tin cans, which make it possible to save and distribute 300 million dollars worth of food and other perishables for the benefit of the public.

America is more healthful with these vegetables added to its winter diet, farmers have millions in extra income, food prices are lower -- all because of cans.

And this is only *one* use of steel. Our transportation, homes, clothing, amusements, national defense -- everything depends on steel for its material or on steel machinery for its construction. And steel, in turn, depends on *men* to make it right. Here at Youngstown we are constantly making improvements to keep our mills as modern as science can develop. But all the equipment in the world can't equal *men* in the making of fine steels. We are proud of our workmen who are spending their lives making the finest TIN PLATE that skill and care can produce.

Tin Plate - Sheets - Plates - Pipe and Tubular Products - Conduit - Bars - Rods - Wire - Nails - Tie Plates and Spikes

25-22C

QUALITY TRADE MARK YOUNGSTOWN SERVICE

THE YOUNGSTOWN SHEET AND TUBE COMPANY

Manufacturers of Carbon and Alloy Steels

General Offices - - YOUNGSTOWN, OHIO

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(Continued from page 38, Advertising Section)

Asher Walter, 15 Moore Street, New York, N. Y., has the following copies of PENCIL POINTS for sale: March, July, September, November, 1934; May, July, September, November, 1935; January, February, March, July, September, 1936; February through June, 1937; all but September, 1938; January through June, and August, 1939.

Elton Ransom, 236 E. Ferry Street, Detroit, Mich., would like to obtain copies of the following magazines, for the years 1928 to 1935, inclusive: PENCIL POINTS, *American Architect*, *Architectural Record*, and *Architectural Forum.*

Charles G. Kemp, 364 Church Lane, Philadelphia, Pa., has the following books for sale: *Provincial Houses in Spain* and *Rejeria of the Spanish Renaissance*, both by Arthur Byne & Mildred Stapley; *Early American Wrought Iron*, set of 3 volumes; *Architectural Wrought Iron, Ancient and Modern*, Wm. Winthrop Kent; *Colonial Iron Work in Old Philadelphia*, Phillip B. Wallace; *An Encyclopaedia of Iron Work*, E. Weye, publisher; *Wrought Iron and Its Decorative Uses*, M. Ayrton & A. Stapley; *Modern French Iron Work*, Henry Clouzot; *Architectural Terra Cotta*, National Terra Cotta Society.

OFFICE SPACE WANTED. Modern interior designer with highest qualifications, full architectural training, some work on hand, wishes to rent office space, preferably in midtown New York architect's, designer's or decorator's office. Either strictly rental basis or exchange for part time services. Felix Augenfeld, 35 E. 38th Street, New York, N. Y. Phone: MUrray Hill 4-8940.

PERSONALS

ROLF SKLAREK, *Architect*, has opened an office for the general practice of architecture at Room 109, 116 North Larchmont Boulevard, Los Angeles, Calif.

SCHULTZE AND WEAVER, *Architects*, have dissolved partnership and the firm of Leonard Schultze and Associates has been organized for the practice of architecture and to carry on the work of the former firm, with offices at 18 East 48th Street, New York. Members of the firm are Leonard Schultze, E. V. Meroni, Lloyd Morgan, and William Sunderland.

EDWARD L. WILSON and JOSEPH J. PATTERSON, *Architects*, have formed the partnership of Wilson and Patterson for the practice of architecture, with offices at 512 Sinclair Building, Fort Worth, Texas.

J. M. BLEW and J. M. BLEW, JR., *Architects*, have become associated as partners in the general practice of architecture, with offices in the Otis Building, Philadelphia, Pa., and in the Crozer Building, Chester, Pa. The firm name is J. M. Blew & Son.

DUDLEY S. GREEN, *Architect*, formerly with Lang & Witchell, Dallas, has opened his own office at 610 Thomas Building, Dallas, Texas.

ELEANOR PEPPER, *Architect*, has opened her new studio for consultation on architectural design and interior design problems at 61 East 66th Street, New York, N. Y.

LUCIAN MINOR DENT and A. L. AYDELOTT, *Architects*, have become associated for the practice of architecture, with offices at 801-802 First National Bank Building, Memphis, Tenn.

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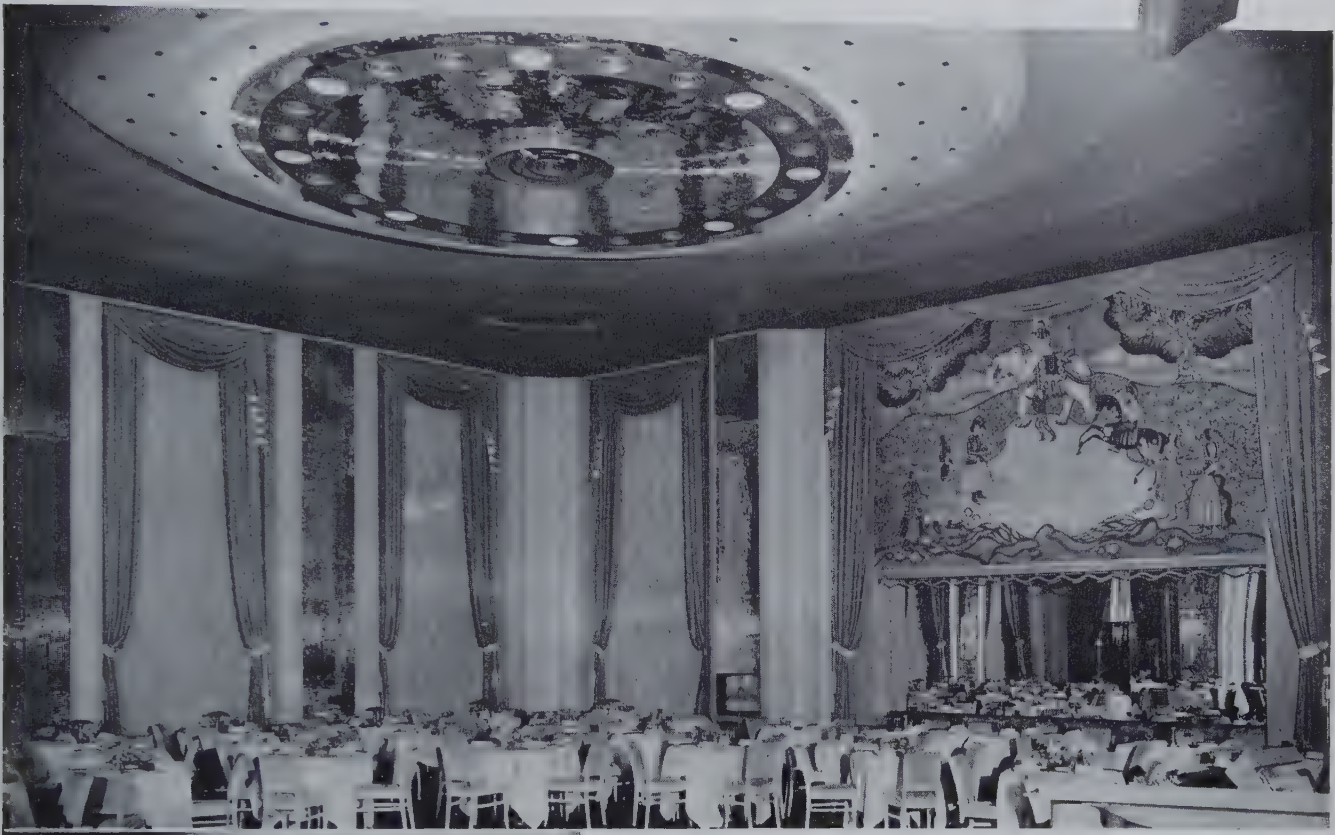

Persian Room, Plaza Hotel, New York, N. Y.; Peach Mirror Flexglass panels and lighting fixtures; Scott & Teegen, Architects.

Traditionally elegant and gracious the Plaza's Persian Room now presents a modern decor to its patrons. Scott & Teegen, Architects, wrought the transformation through the use of Peach Mirror Flexglass in a color scheme combining soft blues, beige pink and warm off-white. Flexglass was used for the towering pilasters, for walls and partitions of the intimate cocktail niches, and for the distinctive central lighting fixture. Since no structural changes were required for the use of Flexglass, the transformation was accomplished quickly, with a minimum shut-down period for the renovation. Flexglass is real glass in 30 colors and patterns, available in four types . . . opaque, flat mirror, rolled mirror, and metallic . . . in sheets of gleaming facets remarkably pliable and easily handled. It will conform to curves, and it is cemented easily to any smooth, hard surface. A new and exciting design material, Flexglass lends itself to a thousand and one colorful applications and combinations.

Close-up of central lighting fixture in the Persian Room, showing Peach Mirror Flexglass applied in strips.

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PUBLICATIONS ON MATERIALS AND EQUIPMENT

of Interest to Architects, Draftsmen and Specification Writers

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS *by the firm issuing them. When writing for these items please mention* PENCIL POINTS.

INGERSOLL KOOLSHADE SUN SCREENS. — Brochure, dealing with the subject of KoolShade sun screens, illustrates a wide variety of buildings in which this type of sun screen has been installed. 12 pp. 8½ x 11. Ingersoll Steel & Disc Division, Borg-Warner Corp., 310 S. Michigan Ave., Chicago, Ill.

THE NEW EDWARDS CLOCK-CHIME.—Folder announcing and describing a new wall clock and chime for front and rear door signals combined in one unit. Edwards and Company, Inc., Norwalk, Conn.

THE PHANTOM DOORMAN. — A.I.A. File No. 27-3-c. Brochure giving detailed description of the Phantom Doorman, an electric-eye-controlled automatic door opener-closer. Illustrations show the device applied to entrance doors of stores, theatres, banks, office buildings and showrooms, also service door applications in hotels, restaurants, night clubs, hospitals and institutions. 8 pp. 8½ x 11. The Yale & Towne Mfg. Co., Stamford, Conn.

HOW TO DESIGN FLUORESCENT LIGHTING. — A new manual containing practical hints on the design of fluorescent lighting systems. Correct mountings and structural details are given in expanded form to help suggest spacings of units for maximum benefits and efficiency. The importance of room factor, including room proportions, reflection factors, and lighting equipment to be used, are fully explained. Various levels of illumination are tabulated to make the selection of the proper number of lamps simple and easy. Examples and design sketches, as well as a list of general lighting precautions, with remedies and suggestions, and two pages of cost analyses, are also included. Copies of the manual may be obtained at a cost of seven cents per copy from the Westinghouse Lamp Division, Bloomfield, N. J.

GENERAL CABLE CALCULATOR. —Handy new device for calculating sizes and types of building wire, conduit sizes and current capacities for both rewiring and new work. General Cable Corp., 420 Lexington Ave., New York, N. Y.

ARCHITECTURAL CONCRETE.— Issue No. 4 of volume 6 of this series of useful monographs for architects features with photographs and text numerous concrete structures, including the Shangri-La Apartment Hotel, Santa Monica, Calif., State Department of Archives and History Building, Montgomery, Ala., also two airport buildings, schools, store, hospital, bathhouses, coastguard station, municipal and court house buildings. 36 pp. 9 x 12. Portland Cement Assn., 33 West Grand Ave., Chicago, Ill.

CONNECTICUT INTER-COMMUNICATING SYSTEMS. — A.I.A. File No. 31-i-5. Bulletin No. 103. New reference manual presenting detailed description of the operation and equipment used in nine inter-communicating telephone systems suitable for a wide variety of applications. Included are wiring diagrams, installation data and information on special equipment and installation accessories. 46 pp. 8½ x 10. Connecticut Telephone and Electric Corp., Meriden, Conn.

ROYAL BRASS PLUMBING PRODUCTS. — Catalog H lists and illustrates a full line of built-in bath, shower and lavatory fittings, mixing valves, exposed and concealed showers, shampoo and combination lavatory faucets, self-closing faucets and valves, etc. Specifications. 70 pp. 8½ x 10⅝. The Royal Brass Mfg. Co., 1418 East 43rd St., Cleveland, O.

HOW TO CHOOSE A SLIDE RULE.—A humorous publication by Don Herold explaining the difference between the various types of slide rules available. It contains slide rule information of interest to both the architectural and engineering professions. 24 pp. Keuffel & Esser Co., Hoboken, N. J.

MAJESTIC BUILDING NECESSITIES.—New general catalog describing and illustrating an extensive line of items essential to modern building, including the new No. 30 fuelless home incinerator. Also presented are suggestions for building fireplaces, specifications, dimension tables and diagrams, etc. 32 pp. 8½ x 11. The Majestic Co., Huntington, Ind.

NEW CARRIER GAS-FIRED UNIT HEATERS.—Folder describing a new line of gas-fired unit heaters. Advantages of forced air gas heat are pointed out in the folder which also lists dimensions, capacities and specifications. 4 pp. 8½ x 11. Carrier Corporation, Syracuse, N. Y.

Published by the same firm, "Carrier Outlets." Descriptive and specification data sheet covering new Carrier grille type outlets, designed to give complete air distribution. 8½ x 11.

GRANDSTANDS OF DOUGLAS FIR.—Architects' filing folder containing initial set of specimen plans in a new series of Blue Ox structural designs in Douglas Fir covering a unit grandstand. The purpose is to show some of the present ways of designing in timber, the publication including analyses showing how joints and the jointed members are determined. 9½ x 11¾. West Coast Lumbermen's Assn., 364 Stuart Bldg., Seattle, Wash.

Published by the same association, "Changes and Additions to Douglas Fir Use Book" and "Supplement No. 2." The first publication notes a few changes to bring the 1935 and 1936 printings of the use book up to date. Supplement No. 2 covers the working strengths of nails, spikes, drift bolts and wood screws in West Coast woods.

CORNELL ROLLING GRILLES.— Catalog with descriptive and installation data covering a type of rolling grille suitable for store fronts, factory gates, prisons, hospitals, asylums, public and private buildings of all kinds. 8 pp. 8½ x 11. Cornell Iron Works, Inc., 36th Ave. & 13th St., Long Island City, N. Y.

GUTH FLUORESCENT LIGHTING.—Catalog No. 37 covering a complete line of Guth fluorescent fixtures, including the new Light-O-Day troffers for recessed lighting and Twin-100 Flu-O-Flectors for the new five-foot 100-watt fluorescent lamp. Much helpful technical data and suggestions for lighting problems are included. The Edwin F. Guth Co., 2615 Washington St., St. Louis, Mo.

GORTON EQUALIZING VALVES AND AIR ELIMINATORS.—Bulletin No. 110 describes and illustrates a line of equalizing valves and air eliminators for use on the Gorton systems of vaporizing and equalizing steam heating systems for automatic heating. 4 pp. 8½ x 11. Gorton Heating Corp., Cranford, N. J.

A-S-E AURORA BLUEPRINT FILING CABINETS.—Illustrated folder giving detailed description of a type of cabinet for storing blueprints, tracings, drawings, maps, artwork, etc. Dimensions. 4 pp. 8½ x 11. All-Steel-Equip Co., Inc., Aurora, Ill.

(Continued on page 44)

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PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 42)

ALL LINES POINT TO QUIET MAY. — New reference manual designed specifically for architects, draftsmen and builders covering the complete line of Quiet May oil heating equipment, including automatic oil burners, oil heating units, air conditioning units and Heat-an-Aire conditioners. Selection data, dimensions, etc. 20 pp. 8½ x 11. The May Oil Burner Corp., Baltimore, Md.

ELLISON BALANCED DOORS. — Brochure dealing with the subject of Ellison balanced doors contains many illustrations, detail drawings, specifications and list of installations, comprising full information on this new and modern type of entrance door. 12 pp. 8½ x 11. Ellison Bronze Co., Inc., Jamestown, N. Y.

WESTINGHOUSE SEMI-INDIRECT FLUORESCENT LUMINAIRES. — Illustrated folder, F-8506, describing the recently-announced CL-160 four-lamp fluorescent luminaire, designed especially for lighting offices, schools, stores or public buildings. Included are distribution curves, dimension sketches, etc. 4 pp. Westinghouse Elec. & Mfg. Co., Lighting Division, Cleveland, O.

B & T CHROMEDGE METAL TRIMS.—A.I.A. File No. 23-j. Catalog No. 140 describes and illustrates a complete line of metal trims and accessories, including cap and wainscot trims, corner and cove trims, edgings and bindings, linoleum insert trims, nosings, wall panel trims, etc. Included are twelve pages of details. Price list. 60 pp. 8½ x 11. The B & T Floor Co., Columbus, Ohio.

NEW WAKEFIELD FLUORESCENT LIGHTING UNITS.—Folder describing two new lighting units especially designed for use with the new 60-in. size fluorescent tubes for commercial use. 4 pp. 8½ x 11. The F. W. Wakefield Brass Co., Vermilion, Ohio.

FIR-TEX FIRE RETARDANT INSULATING BOARD LATH.—A.I.A. File No. 37. Folder announcing and describing a new type of fire retardant insulating board lath for use as a plaster base for walls and partitions. Test data. 4 pp. 8½ x 11. Fir-Tex, 1108 Porter Bldg., Portland, Ore.

Published by the same firm, "Fir-Tex Absorptive Form Liner, No. 273." A.I.A. File No. 37. Folder with descriptive and test data covering a new absorptive form lining board. Application instructions. 4 pp. 8½ x 11.

(Continued on page 46)

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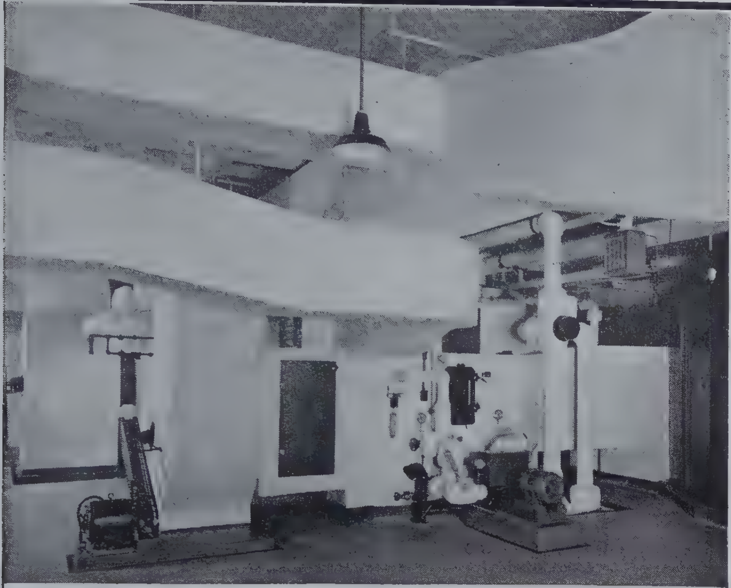

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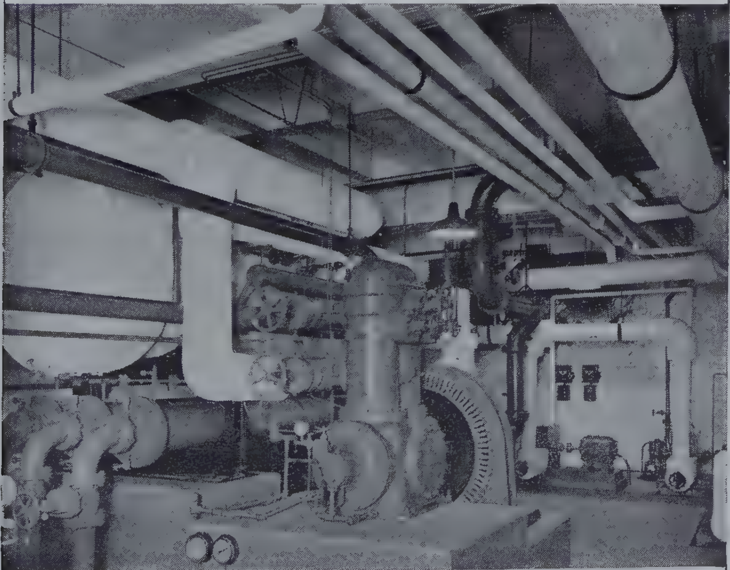

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PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 44)

ANKORTITE BUILDING ACCESSORIES. — Catalog No. 41 describes and illustrates a complete line of metal building products, reinforced concrete accessories, nosings, edgings and thresholds, terrazzo strips and bars. Specifications, tabular matter, etc. Separate price list accompanies catalog. 32 pp. 8½ x 11. Ankortite Products, Inc., 14th and Chestnut Sts., Kansas City, Mo.

TRUSCON PARATEX RUBBER BASE FLOOR COATING. — A.I.A. File No. 25-e-30 and 25-g. Folder announcing and giving detailed description of a new chlorinated rubber coating for exterior and interior concrete or wood floors. Color chart is included. 4 pp. 8½ x 11. Truscon Laboratories, Inc., Detroit, Mich.

A HAPPY HAPPENING IN HEATING.—Bulletin explaining the advantages and operation of the Taco-One Venturi warm water radiator system for heating homes. 8 pp. 8½ x 11. Taco Heaters, Inc., 342 Madison Ave., New York, N. Y.

KENNEDY VALVES, PIPE FITTINGS, FIRE HYDRANTS. — Catalog No. 63, just issued, presents complete data on bronze and iron-body valves for low, standard and high pressures, standard bronze and malleable-iron screwed fittings, standard cast-iron flanged fittings and flanges, fire hydrants and various valve specialties. Included are recommendations for the selection of valves and fittings, suggestions for operation, care and maintenance of valves and much useful engineering data. 240 pp. 8½ x 11. The Kennedy Valve Mfg. Co., 1155 E. Water St., Elmira, N. Y.

KLEMP FLOOR ARMOR, DIAMOND GRATING AND STAIR TREADS.—A.I.A. File No. 14-r. New catalog describing Diamond grating, steel stair treads, Hexsteel heavy duty surface armor and Klemp-Acme Floorsteel. Included are tables of safe loads and information on assembly and recommended fillers. 8 pp. 8½ x 11. Wm. F. Klemp Co., 6601 S. Melvina Ave., Chicago, Ill.

KOPPERS MEMBRANE WATERPROOFING. — Bulletin Form TB-3 explains when waterproofing and dampproofing should be applied. The respective values of fabric and felt are described and methods of application are pictured and discussed. Three Don Graf data sheets are reproduced, showing waterproofing of deep foundations, tunnels connecting buildings and shower bath construction. 8½ x 11. Koppers Company, Tar and Chemical Div., Pittsburgh, Pa.

Published by the same firm, "Koppers Dampproofing."—Bulletin Form TB-4 distinguishes between dampproofing and waterproofing, explains when each should be used and describes how to dampproof poured concrete, concrete piles or slabs, foundation blocks, floors and sub-floors of superstructures. It also describes termite-proofing by the pitch method. 8½ x 11.

HANDBOOK OF BUILDING MAINTENANCE. — A ready reference guide for those individuals responsible for the maintenance of industrial buildings and structures. Descriptive data, including installation instructions, cover a complete line of floor repair and building maintenance materials. 68 pp. 6 x 9. Flexrock Co., 2301 Manning St., Philadelphia, Pa.

(Continued on page 48)

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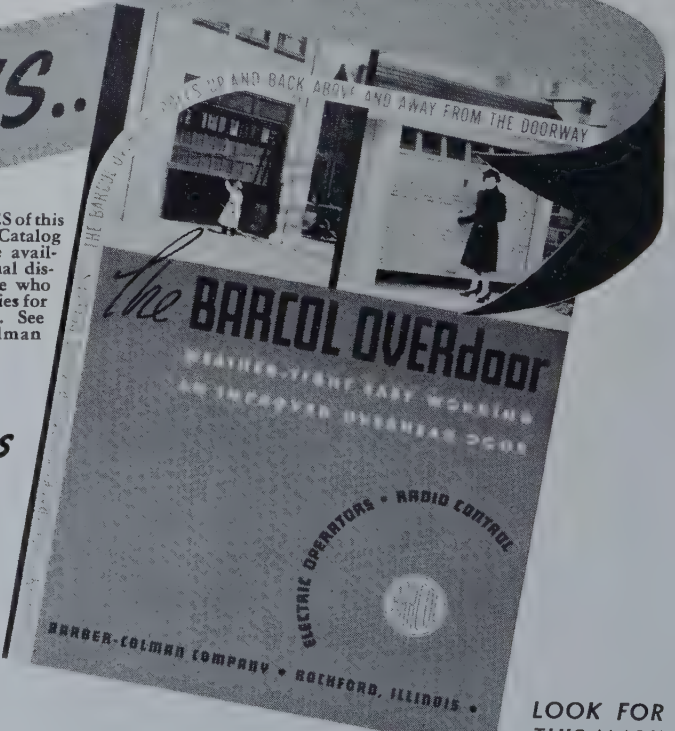
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ARCHITECTURAL DELINEATOR —20 years' experience in architectural perspective and rendering in all mediums. Permanent or part time. Box No. 6.

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ARCHITECTURAL STUDENT at Cornell desires summer position with architect or contractor. Salary secondary to experience. Keith Muir Morey, 61 Walnut St., Bristol, Conn.

ARCHITECT DESIGNER—30—12 years' experience in planning, designing and detailing public buildings, commercial buildings, residences and interiors. Capable administrator and supervisor. Excellent references. Box No. 8.

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PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 46)

RED JACKET WATER SERVICE PRODUCTS.—Catalog No. 121 describes and illustrates a complete line of pumps, water systems and water softeners. Specifications, capacity tables, performance data, etc. 40 pp. 8½ x 11. Red Jacket Mfg. Co., Davenport, Iowa.

FORMICA PLASTIC FINISHING MATERIAL. — New catalog prepared for architects dealing with the subject of Formica, a decorative material for table tops and counters, wall panels, doors and inlaid murals in stores, restaurants, public buildings, theaters, schools and homes. Included are color chart, construction details, installation photographs, etc. 12 pp. 8½ x 11. The Formica Insulation Co., Cincinnati, O.

A PERSONALIZED PAINT SERVICE.—A.I.A. File No. 25. Folder explaining the operation of a recently established personalized paint service for architects, builders, specification writers, interior decorators, contractors, etc. 4 pp. 8½ x 11. Central Paint & Varnish Works, 63 Prospect St., Brooklyn, N. Y.

IN CASE OF FIRE. — Bulletin describing the uses of carbon dioxide for fire extinguishment, and showing complete line of hand and wheeled type extinguishers, hose systems, recharging equipment, sales and service points. 8 pp. 8⅜ x 10¾. C-O-Two Fire Equipment Co., Pyrene Bldg., Newark, N. J.

MANUFACTURERS' DATA WANTED

ROLF SKLAREK, *Architect,* Room 109, 116 North Larchmont Blvd., Los Angeles, Calif. (Data for complete A.I.A. file, data for drafting room, and samples.)

F. CARTER WILLIAMS, *Architect,* Box 5445, State College Station, Raleigh, N. C. (Data for complete A.I.A. file.)

DAVID R. WILLIAMS, *Chief Architect and Director,* Construction Program, National Youth Administration, 2145 C Street, N. W., Washington, D. C.

DEPARTMENT OF ARCHITECTURAL ENGINEERING, National Central University, Chungking, China.

J. L. SHAW, *Draftsman,* 1425 So. 5th Street, Springfield, Ill. (Data for A.I.A. files and data on low cost housing.)

O. HUEY THOMAS, *Draftsman,* 4947 Champlain Avenue, Chicago, Ill. (Data for A.I.A. file and data for small homes.)

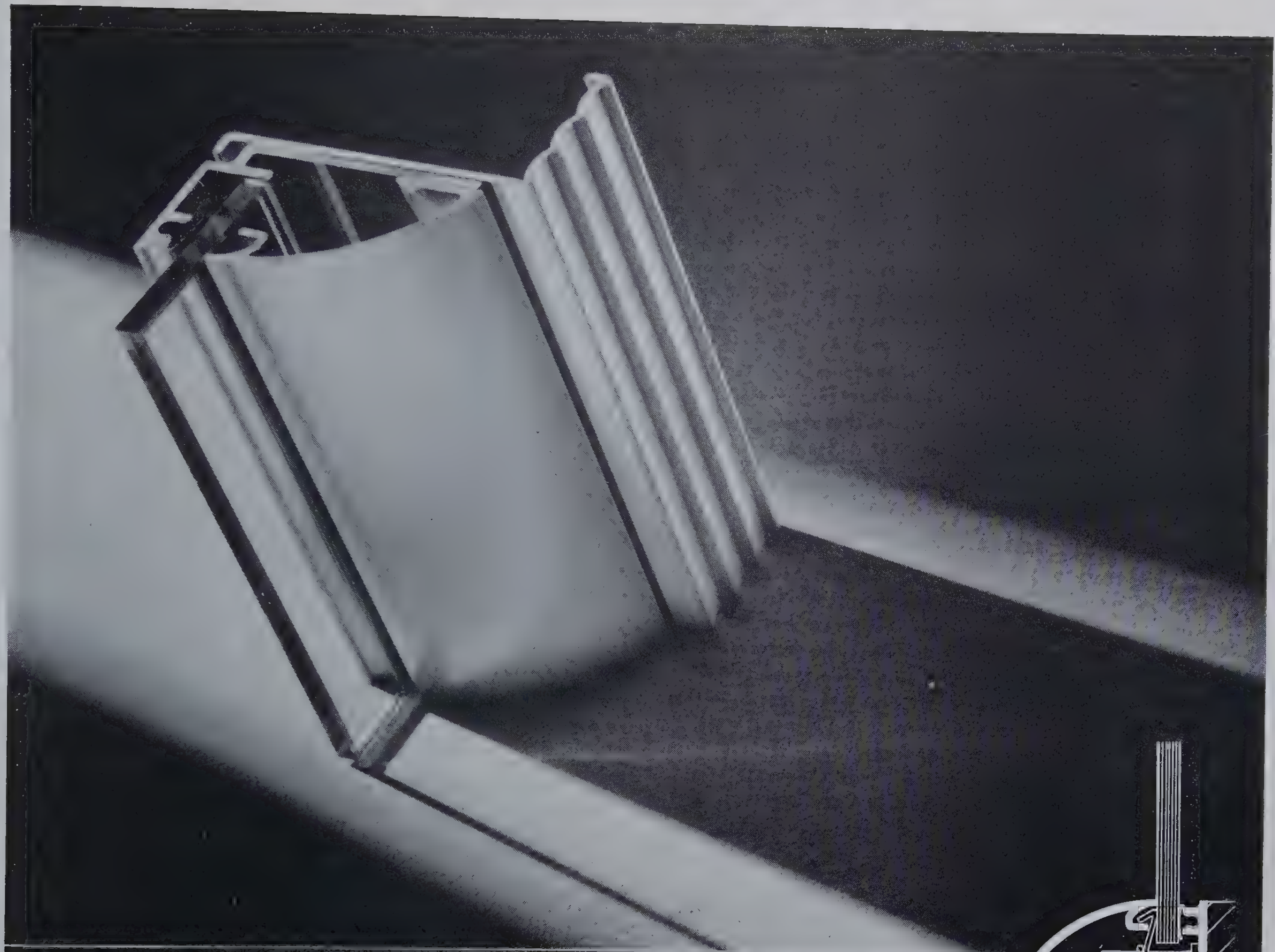
DUDLEY S. GREEN, *Architect,* 610 Thomas Building, Dallas, Texas. (Also samples.)

ANTHONY GIARDINETTO, JR., *Student,* 1507 Clybourn Avenue, Chicago, Ill. (Data for complete A.I.A. file, and data on homes and their decoration, plans and modern equipment, for drafting room use.)

KEITH M. MOREY, *Student,* 61 Walnut Street, Bristol, Conn. (Data for complete A.I.A. file, and data on house plans and modern equipment for houses.)

ROBERT H. MITCHELL, *Student,* 540 N. Gower Street, Los Angeles, Calif. (Data for landscape architecture, outdoor construction work and ornament.)

KENNETH L. RICE, *Student,* Delta Chi House, Gainesville, Fla. (Data for residential and small construction work.)



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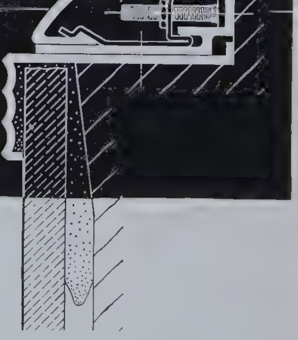
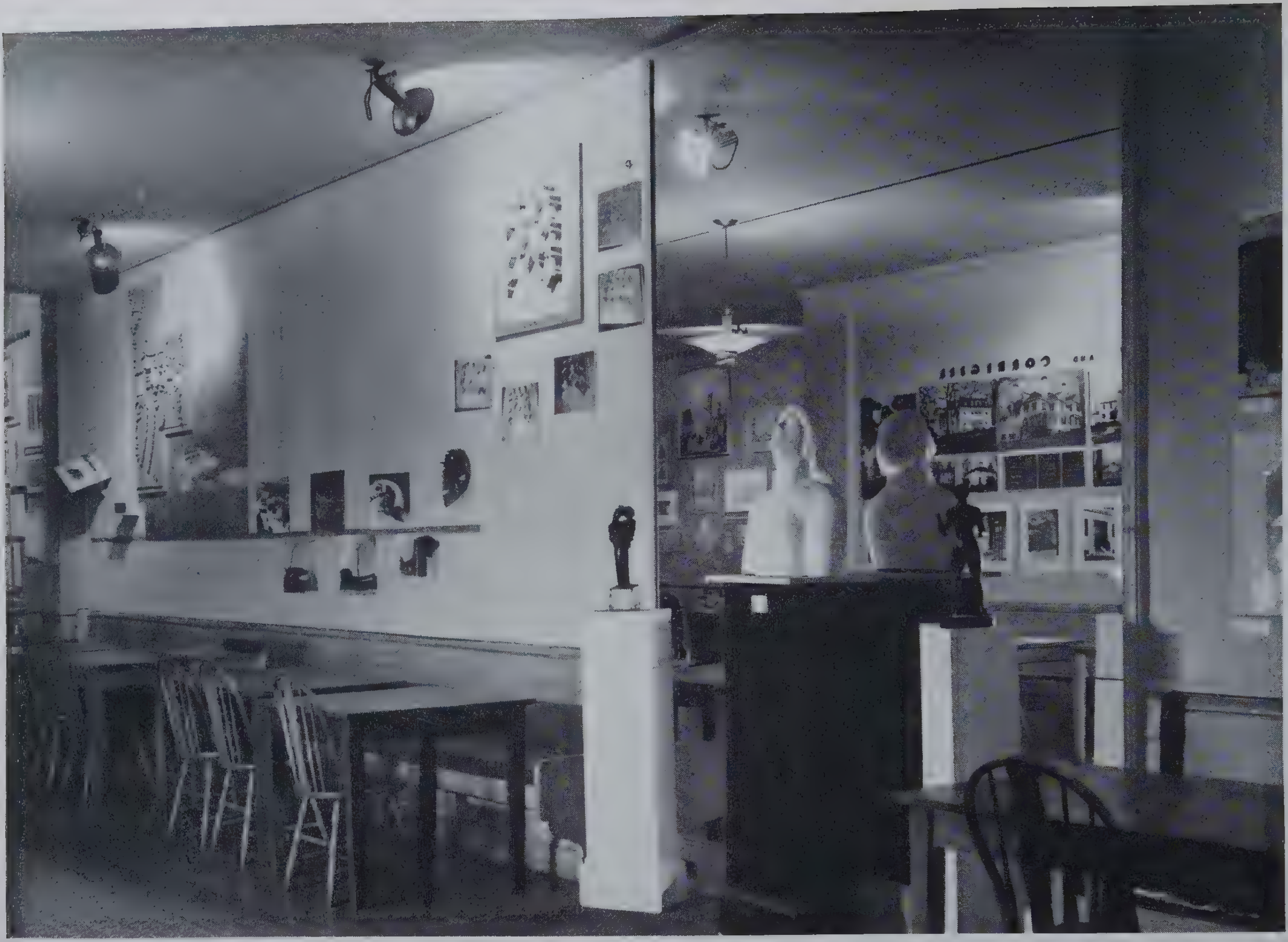


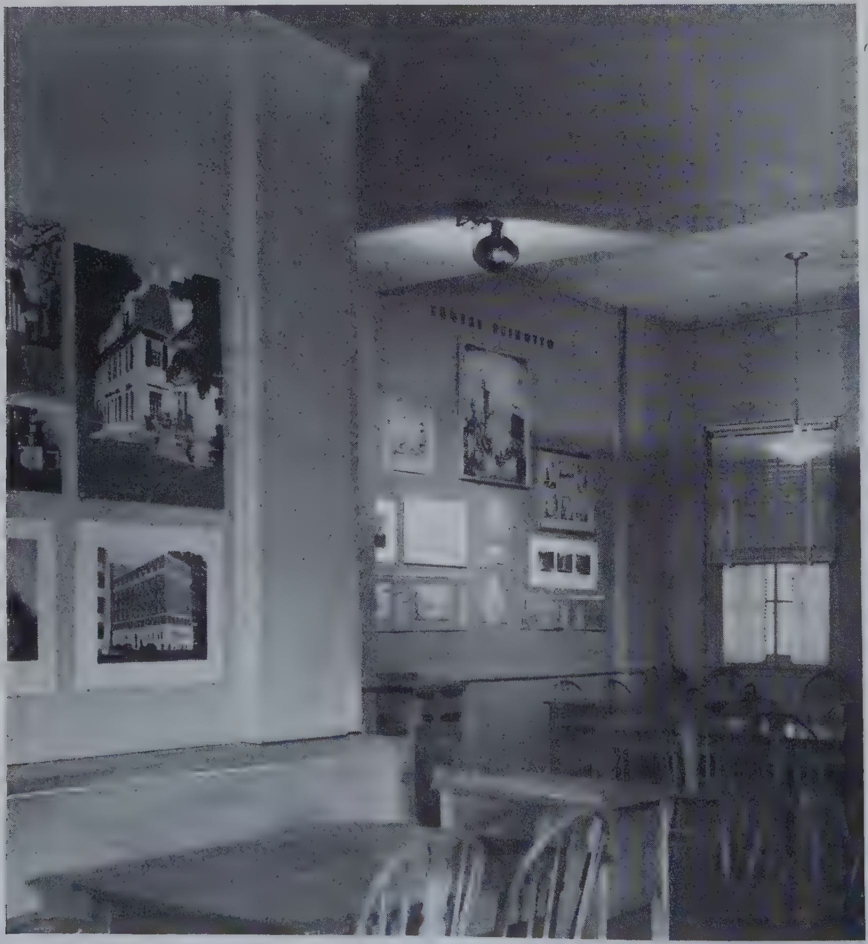
DETAIL:

In the above combination, the clean arc of the sash face-plate enhances and intensifies the fluted jamb moulding. Sash: 12-A. Jamb: PX-195.

THE wide variety of units composing the Pittco Store Front Metal line affords the architect an opportunity to achieve unusually pleasing combinations of members. Each unit in the line bears a definite design relationship to all other units which may be combined with it in actual store front work. The effective contrast between smooth, sweeping surfaces and adjacent surfaces which are interrupted by beading or sharp contours, is a design element provided generously by Pittco Metal. This quality is exemplified in the sash shown above. Whatever problems of metal construction may confront you in designing quality store fronts, you will find a distinguished answer to them in the varied bars, mouldings and sash of the Pittco Metal line. Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Pennsylvania.

PITTCO STORE FRONT METAL
PITTSBURGH PLATE GLASS COMPANY
"PITTSBURGH" stands for Quality Glass





NEW YORK LEAGUE MEMBERS SHOW WORK

The Architectural League of New York has initiated successfully a new plan for the exhibition of the work of its members. Beginning in October, seven panels (each offering about 120 square feet of space) have been hung monthly on the walls of the League dining room. These have been assigned successively to groups of League members—the plan being to show each month a well-balanced exhibition of architecture, paintings, landscape architecture, sculpture, and other arts represented by the League membership. Hugh Ferriss is Chairman of the "Panel Exhibit" project.

Members whose work is on exhibition this month are *Harrison & Fouilhoux*, *Archibald Manning Brown*, *Nancy V. McClelland*, *Léon V. Solon*, *Evans, Moore & Woodbridge*, *Gustav Jensen*, and *Bassett Jones*.

The Panels are discussed monthly at a dinner, and Honorable Mentions are announced by the Committee Chairman. The photographs on this page and page 52 were made during the November "Panel Exhibit."

PICTURE OF A CLIENT

Who does not care about Armstrong's Corkoustic

SILAS Dunbush is nigh onto stone deaf. But your OTHER clients will be extremely interested in the fact that a ceiling of Armstrong's Corkoustic will make an office, restaurant, school, or hospital more restful and quiet. They'll appreciate the importance of Corkoustic's effective noise-absorption coefficient—as high as 82% at 512 cycles.

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The story of Armstrong's Corkoustic is presented in the illustrated booklet—"Tune Out Noise." It contains all the facts about acoustical correction and noise-quieting which you and your clients need. You may have a free copy by writing Armstrong Cork Company, Building Materials Division, 1227 State Street, Lancaster, Pa.

ARMSTRONG'S CORKOUSTIC AND TEMCOUSTIC

Panel Exhibits arranged under the direction of Hugh Ferriss are giving members of The Architectural League of New York an opportunity to show their work. Seven individuals or firms participate each month. This picture and those on page 50 were made in November when those exhibiting were: Clay & Corrigill, Leo Friedlander, W. H. Gompert, Ely Kahn and Robert Allan Jacobs, the late Ernest Peixotto, Chester B. Price, and Voorhees, Walker, Foley & Smith

BOSTON NOTES

January is not a forward-looking month, despite the old hokum anent resolutions. You can't go through the emotio-physical strain of this planet's favorite holidays and then summarily clear your mind or rid your viscera of their impact. No sir, the lag lingers and it will not be legislated out! Did I say lag?

In December days of eld (pre-Repeal) when Sidney was ruining a kidney for the sake of a limerick and *Wayne B. Wheeler's* every word found its mirror in printers' ink, you detected a savory, forbidden-fruitish flavor about the holiday experiences, one whose complete history was not allowed to begin until after uproarious post-mortems come Epiff (i.e. Epiphany).

The smashing incipience of this festival season was an office party for all hands and its trademark the crockled ring on blueprint and tracing. Graft cigars bulged every pocket, and boss and slave dropped guard for the nonce, though the latter felt that their master's sarsaparilla was somehow tied up with psyrology.

Spot where the body was most often found a few hours later on Christmas Eve, may confidently be located upon Beacon Hill. Now the Hill has been significant, time out of mind, for its carolers, candlelit houses and open hospitality, but in that epoch you could still expose yourself to its charms without risk of having your corns crushed by charging mobs of the general public.

Architectural oases were conveniently scattered over the southerly slope, qualification for that title lying in the possession of a pipe line to Mr. Cohen (who is at present doing very well in another trade).

As I said, the mob had not taken over but the streets were far from deserted, for caravans of Visiting Firemen plied the trade routes between oases, sometimes accompanied by ex-officio members of the local constabulary; a lawless interlude.

Probably no gayer spot was to be discovered than *Hickey Stone's*, or one where the architectural atmosphere ran truer to form. *Brother Ed* was a little boy in them days, and lay slumbering in a top bureau drawer the while events transpired. Then, too, *Bob Cram* had his own Garden of Eden, and one always called at *Walter Kilham's*.

If the weather crashed through with such seasonal props as snow and frost our hilly, slippery streets demanded a continuity of muscular coördination in excess of the supply; the trick was to fall limp.

On that one night even the ultra-conservative ran from their cloisters with a mild but determined "yippee." I seem to recollect cricket-spry *Bill Mason* massaging the final notes of Opus 10 No. 3 (Chopin). Up came the damper pedal and Bill shook himself out of the etude's mood; it was December 24th. He glanced twice at the calendar to verify his suspicions, then placed a tin of bicarb handily on the table and went roaring out into the frosty eventide, as carefree a soul as ever whammed a fellow celebrant's tar paper hat.

Back at Hickey Stone's towards morning came *Wally Webber* and cohorts brandishing musical instruments. They had climbed the peak from its northerly side, after serenading inmates of a corrective establishment and enjoying corrective hospitality (distilled unostentatiously on the premises).

Thus burned the evening out and came the dawn; Aurora's chariot not having the common decency to stay its course by one jot, a slave to schedules. But as if to allay such inhumanity there was a last and epic balm soon to be ladled from beneath the decorative surface of *Hubert Ripley's* Christmas morning punch. The scene changed to Newton for this ceremony, with architecture well represented by such dignitaries as *Paul Wood*, *Jim Flaherty*, *Georges Wiren*, *Nelson Chase*, or *Major Bob Dean* (who must have been a buck private at that remote time). No less gifted a person than Mr. Ripley, or son Hubert, Jr., could cope with the fashioning of words through which to perpetuate the dulcet remembrance of this great occasion.

One withdrew regretfully, turning homewards to adjust his beard and shake the mothballs from the red and fur-trimmed suit that Santa wore.

* * *

John T. Whitmore addressed the Architectural League of Boston on November 21st, which is not a holiday in these parts (*Get* that). He concerned himself with various topical matters of considerable interest to the League. Another speaker presented the Blue Cross hospitalization scheme in which the League hopes to participate.

A smoker at the Boston Architectural Club featured accounts of their recent travels by the two first coholders of the Club's traveling scholarship, messrs. *Bradt* and *Jank*. The handsome profile of Clubman *George O. Lloyd* (now MIT) has been spread over New England by the Boston Herald, as he stood gazing at his prizewinning poster for a society with a long name. And speaking of winners, the selfsame major who was drinking Christmas punch a few lines above has just produced the best design in competition for a military medal.

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The newest building of the 12-acre industrial plant of the United States Tobacco Company in Richmond, Virginia, has just been dramatically flood-lighted by the General Electric Company, making it one of the show places of Richmond at night. The $2,000,000 building was designed by Schmidt, Garden & Erikson, Architects, of Chicago, with T. Blackman, U.S.T. Company Engineer, serving as consultant in designing the plant

COMPETITION ANNOUNCEMENTS

A.I.S.C. JURY

The following Jury has been appointed by the American Institute of Steel Construction to select the prize-winning designs in the Students' Annual Bridge Design Competition:

Dr. Shortridge Hardesty of Waddell & Hardesty, Consulting Engineers; *Walter H. Weiskopf* of Weiskopf & Pickworth, Consulting Engineers; *John T. Briggs*, Architect; *M. W. Del Gaudio*, Architect, and *Theodore Reed Kendall*, Engineering Editor, The American City Magazine, all of New York. The Jury will meet at the headquarters of the Institute, 101 Park Avenue, February 19.

This competition has been held annually during the past twelve years. The designs judged to be the first, second and third best will be awarded prizes of $200, $100 and $50 respectively. Certificates signed by the Jury of Award and by the officers of the Institute will be awarded to the prize-winners and to those given honorable mention.

BREUER ON JURY

The appointment of *Marcel Breuer* as a judge of the Industrial Design Competitions for Home Furnishings sponsored by the Museum of Modern Art has been announced. He replaces *Alvar Aalto* who has returned to Finland after several months in this country.

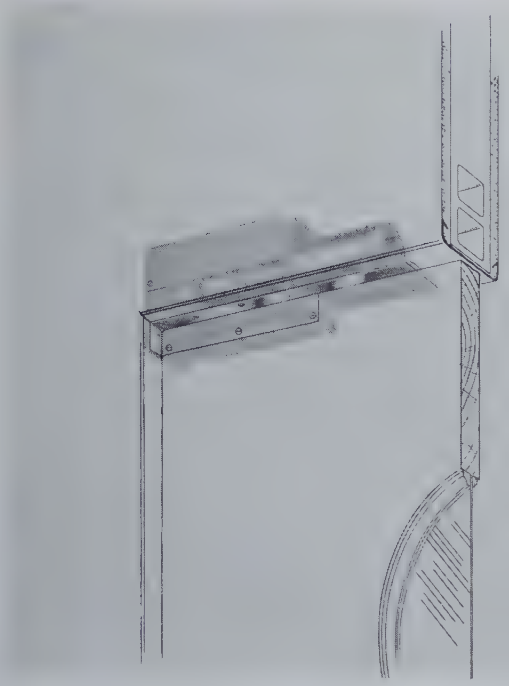
These competitions—I for North America and II for Latin America—opened September 30 and will be judged by *Breuer, Edward Stone, Catherine Bauer, Edgard Kaufmann, Jr.*, and *Alfred H. Barr, Jr.*, beginning January 20. Winners will be announced a few days later, unless a second judgment is considered necessary.

Early in December more than 600 designers had sent in entry cards for Competition I which opened September 20 and continues until midnight January 11. In response to requests more than 250 competition programs have been sent to Latin America for Competition II in which entries will be received not later than Jan. 15.

BRUNNER AWARDS

Hugh Ferriss and *Léon V. Solon* are the recipients of the First Arnold W. Brunner Awards, it has been announced by the Architectural League of New York.

The winners will share the $2,000 provided, permitting them to continue projects on which they are now engaged. Mr. Ferriss will make a series of drawings of "40 Buildings Expressive of the United States During This Period," as a record of masterpieces of contemporary architecture. Mr. Solon will continue work on his book, "The Science of Design and Color Composition: Its Educational Application."



Concealed Control for Double Acting Doors
Smooth, safe, reliable control of double acting doors used in corridors, kitchens and certain entrances is furnished by this LCN Overhead Concealed Door Closer No. 444 or 466. Closer proper takes but 4 1/16″ height, 3½″ width, 15 1/16 to 16 1/16″ length. Used with wood or metal doors at least 1¾″ thick. Full rack-and-pinion mechanism controls door and prevents annoying free swings and "flapping." See LCN catalog in Sweet's or write Norton Lasier Co., 466 West Superior Street, Chicago, for folder 140-P.

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SAMSON SPOT *sash cord*

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by Royal Barry Wills

In this broad land of ours, well designed small houses are surprisingly rare. This book should help to break the continuity of mediocre design. In illustrations, plans, and text, it shows the true possibilities of the small house. Examples were carefully chosen from some 1,000 houses designed by Mr. Wills.

ARCHITECTS will find many examples of the best contemporary residential architecture, in the styles most favored today — including modern.

PROSPECTIVE HOME BUILDERS will find in pictures, plans and text, valuable guidance in the preliminary planning for the most important investment which they are ever likely to make.

CASUAL READERS (may their number be legion) will find a book of typical fine American homes, superlatively illustrated — amusingly but helpfully written.

EVERYONE is interested in homes. Everyone will enjoy these sparkling illustrations of American homes — truly "HOUSES FOR GOOD LIVING."

Royal Barry Wills, the author, is nationally known to architects and to the public. In 1932 he received from the President of the United States the Gold Medal for the best designed house of the year. Succeeding years brought additional honors. In 1939 he was chosen to design one of the houses presented to millions in the magazine "LIFE."

104 pages — 9″ x 12″ — printed in sheet fed gravure — about 150 reproductions (pictures, plans, etc.) — handsomely and strongly bound — jacket an original rendering in color — a book worthy of its contents.

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JAMISON-BUILT DOORS – FOR A BETTER SEAL

(See our catalog in Sweet's Catalog File)

As a New Year's Greeting to our readers, P. T. Chu, Architect, Artist, and Engraver, of Soochow, sent us the photograph reproduced above—an expressive symbol of the calm beauty that can be found even in war-devastated China

ERNEST C. PEIXOTTO

Ernest Clifford Peixotto, muralist and author, died December 6 at his home in New York. He was 71 years old.

Mr. Peixotto's first awards were honorable mentions for drawings exhibited at the World's Fair in Chicago in 1893. Since that time his illustrations have appeared in many magazines, his paintings in several expositions and his murals in public and private buildings. In recent years he had been a leader in the public and government fields of art, having served for nearly five years as a member of the Municipal Art Commission, consultant mural painter to the board of design of the New York World's Fair and as president of the National Society of Mural Painters.

Mr. Peixotto was one of eight artists chosen to go to France with the American Expeditionary Force to reproduce pictorially America's part in the war. He was commissioned a captain in the Engineer Officers' Reserve Corps on February 27, 1918, and then went to France, where he was with the forces at Chateau Thierry, the Marne, St. Mihiel and Meuse-Argonne, sketching as he went. The drawings are now in the New National Museum in Washington, and many of them were published in book form in 1919 under the title, "The American Front." He was made a Chevalier in the French Legion of Honor.

He was born in San Francisco and studied at the San Francisco School of Design under Emil Carlsen. In 1888 he went to Paris, where for three years he was enrolled at the Academie Julian, working under Benjamin Constant and Jules Lefebvre.

HAROLD C. McLAUGHLIN

Harold C. McLaughlin, Architect and active figure in Atlanta art circles, died November 3 in that city. He was a native of Sedalia, Mo., and went to Atlanta in 1919, after serving in the construction division of the Army during the World War.

A graduate of the University of Missouri and the School of Architecture at Massachusetts Institute of Technology, Mr. McLaughlin was a member of The American Institute of Architects and a past president of the Georgia Chapter. His first affiliation in Atlanta was with the firm of Edwards & Sayward. He later joined McDonald & Company, and was responsible for the design of the Union Station. During the depression he served as director of personnel for the government land survey for Georgia. His recent work included one of the city's large housing projects, for Robert & Company, and collaboration with Burge & Stevens on a military project in Savannah.

Professor Harold Bush-Brown, Head of the Department of Architecture of the Georgia School of Technology, has contributed the following note:

"On account of his brilliant mind and keen power of dispassionate analysis, as well as his fine qualities of character, Mr. McLaughlin's death will be a great loss to his many friends in Atlanta, especially to those who make up the professional and artistic life of the community."

JOHN IRWIN BRIGHT

This distinguished member of the architectural profession was a contributor to various professional magazines, *Atlantic Monthly,* and other publications, including the former *Journal of The American Institute of Architects,* with which he was closely identified.

After attending a high school in Pottsville, Pa., *John Irwin Bright* graduated from Princeton University in 1890, and subsequently studied architecture at the University of Pennsylvania and at the Ecole des Beaux Arts in Paris, where he also studied painting. He devoted himself to oil and water color painting for a year and a half in Tangier, Morocco, and returned to Philadelphia in 1900.

During the first World War he was connected with the Ordnance Department in Philadelphia, and was also instrumental in developing the Port plan. Although he retired from active practice in 1927 he kept up his interest in architecture in various important ways. He was Chairman of the Institute's Committees on School Buildings and of the former Committee on Town Planning, a member of the Philadelphia Chapter of The American Institute of Architects and was an assiduous worker in Chapter affairs.

John Bright was a spirited, brilliant character, respected for his pioneering work in city and regional planning, and for his constant championing of and attention to the advancement of architecture, construction, and human rights. Some of his drawings, still existent, show that he was twenty years ahead of the times in layouts, traffic routes and planning.

D. KNICKERBACKER BOYD

Planned to draw the passing crowd

THIS SMART LOUNGE FEATURES A DECORATIVE, YET PRACTICAL CEILING OF TEMLOK DE LUXE!

Below—*A cozy, colorful interior draws customers into the modern Cocktail Lounge, Hotel Commodore, Cleveland, Ohio. High spot is the decorative, sound-absorbing ceiling of 16" x 16" x ½" Armstrong's Temlok De Luxe. The floor is Armstrong's Asphalt Tile.*

YOU can *build in* beauty as well as *comfort* when your specifications call for Armstrong's Temlok De Luxe. This insulating interior finish comes in factory-applied colors, in panel, plank, and board form, which may be combined into many unusual and decorative designs.

But that's not all. Temlok De Luxe also offers practical advantages that make it a real money-saving material to use. It insulates efficiently. That means lower heating and air conditioning costs—greater year-round room comfort. Furthermore, Temlok De Luxe absorbs unwanted sound, and the variety of pastel colors have high light reflection value.

Here's a feature new home builders and commercial operators will especially appreciate. Buildings are often *ready for occupancy weeks sooner* when Temlok De Luxe is installed—because there's no long waiting for plaster and paint to dry. This speed factor also saves money.

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NEW PRODUCTS

NEW 100-WATT FLUORESCENT LAMP

A new 100-watt Mazda fluorescent lamp, said to be the largest yet made and possessing over twice the power of any Mazda F lamp heretofore manufactured for commercial and industrial purposes, has just been announced by the Westinghouse Lamp Division, Bloomfield, N. J.

Five feet long and 2⅛ in. in diameter, it will be available in the 3500° white color, which has proved most popular and adaptable to the greatest number of uses. The 100-watt lamp adds a seventh size to the line of fluorescent lamps now manufactured.

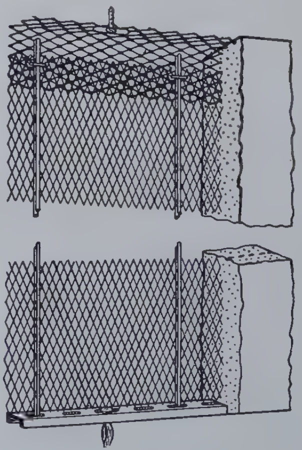
The lamp is intended for use in stores, offices, industrial plants, and elsewhere. Allowing higher mounting heights, it will reduce the size and number of fixtures necessary to supply a given amount of light. The new lamp has a rated initial output of 4400 lumens and a rated life of 2000 hours.

The Westinghouse Lamp Division also announces soft white, a new color for Mazda fluorescent lamps. The latest addition to the seven available fluorescent colors is a combination of daylight and pink phosphors—approximately two parts daylight to one part pink. Soft white lamps are obtainable in 15, 20, 30, and 40-watt sizes.

Richer in red light, the new color is particularly applicable in restaurants, night clubs, hotels, meat showcases, and food markets.

STEELCRETE STUDLESS PARTITIONS

The Consolidated Expanded Metal Companies, Wheeling, W. Va., have recently developed a new type of studless partitions. Steelcrete Studless Bar-X-Partitions consist of only three parts—an expanded metal ceiling runner, a slotted channel floor runner of steel and Bar-X-Lath. Because they are light in weight and easy to erect, as well as low in cost, it is stated, they effect substantial savings in materials and cost of erection. When plastered they are fire and sound resisting.



The extra rigidity of Steelcrete Bar-X-Lath, which permits omitting the usual stud, is due to the reinforcement rods which run lengthwise of each sheet. Solid steel rods on either side of the expanded metal lath are welded to each other through the meshes of the laths. These rods extend about ¾ in. to 1 in. beyond the mesh at either or both ends of the lath. Instead of erecting the lath in the usual manner, horizontally, it is put up vertically with the rods running perpendicular to the floor. The rods are inserted into slotted holes in the floor runner and the top of the lath is wired at each rod to the ceiling runner.

AIR CONDITIONERS FOR SMALL HOMES

The Fitzgibbons Boiler Co., Inc., 101 Park Ave., New York, is now offering a complete range of direct-fired winter air conditioners for the small home in addition to its already established line for larger installations.

The new Directaire direct-fired air conditioners, with newly designed streamlined jackets, are manufactured in three sizes 65,000 BTU, 85,000 BTU and 100,000 BTU. They utilize the principle of two concentric heat exchanger drums around which the carefully filtered air is circulated to be distributed to the various rooms of the house. A feature of these units is the separate fan and motor assembly designed to eliminate vibration.

A centrifugal multi-blade fan, dynamically and statically balanced, runs on ball bearings encased in rubber pillow blocks, and is driven by a resiliently mounted motor equipped with a built-in thermal cutout. A variable pitch motor pulley simplifies control of the volume of air delivered to the rooms of the house. Each unit is equipped with throw-away type filters as well as a float type humidifier.

HERMAN NELSON VERTICAL SHAFT PROPELLER-FAN TYPE hiJet HEATER

The Herman Nelson Corp., Moline, Ill., has placed on the market the new Herman Nelson vertical shaft propeller-fan type hiJet Heater, which was designed to provide a vertically-downward discharge of heated air for application where this type of discharge is desired.

Of the "Blow-Through" type, the propeller-fan projects air through the heating element with sufficient velocity to direct the heated air to the working level.

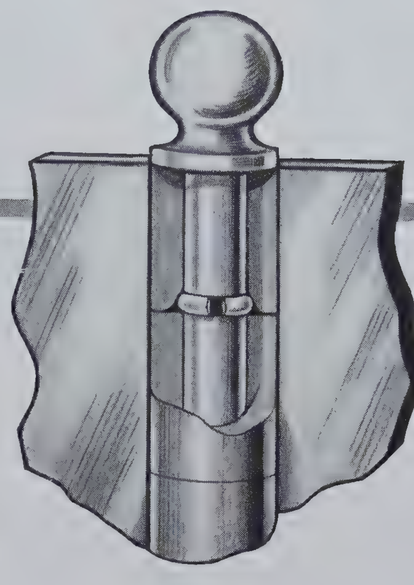
Provided in two distinct types of similar appearance, the Model BMH for high-ceiling location provides high-outlet velocities. This model is available in three different outlet arrangements; No. 1 will project a single column of air straight down; No. 2 projects two columns of air at angles of 30° to vertical and No. 3 arrangement projects the air at 30° to vertical in all directions. Adjustment is provided to vary the outlet velocity 25% from maximum.

The second type, Model AMH, has been designed with low outlet velocities for application where it is not necessary to suspend the heaters at great distances from the floor. There are two discharge arrangements for this model, No. 1 provides a louver which directs ½ the heated air in one direction and ½ in the opposite direction; arrangement No. 2 has a specially designed outlet for the diffusion of heated air.

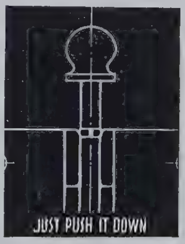
The heating element provides many exclusive features such as expansion bends and a patented stay tube which assure longer life. In addition, three distinct heating elements will be available for each unit to provide a sufficiently low outlet temperature at higher pressures to permit satisfactory results.

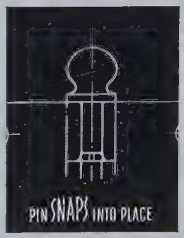
The model AMH (for mounting heights from 12 to 18 feet) is available in six sizes providing from 43,000 BTU to 193,000 BTU with air deliveries from 545 to 2620 CFM. The model BMH (for mounting heights from 18 to 45 feet) is manufactured in capacities ranging from 98,000 BTU to 500,000 BTU with air deliveries from 1330 to 7050 CFM.

An important advance in Butt Hinge design



The New Stanley Non-Rising Pin





The greatest advance in hinge construction in 40 years! A simple, positive, dependable method of keeping butt pins in place.

The non-rising feature is secured by a split ring attached in a groove in the pin. As the pin is seated, the ring expands into a pocket at the bottom of the top knuckle of the butt. It can't rise, yet is easily withdrawn.

In all plain joint butts of the 241 grade and up, specify Stanley and gain this exclusive advantage.

A TIME-SAVER IN SPECIFYING HARDWARE! WRITE FOR IT!

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STANLEY

REMEMBER . . . 3 BUTTS TO A DOOR

BE
Comfortable
WHILE YOU WORK

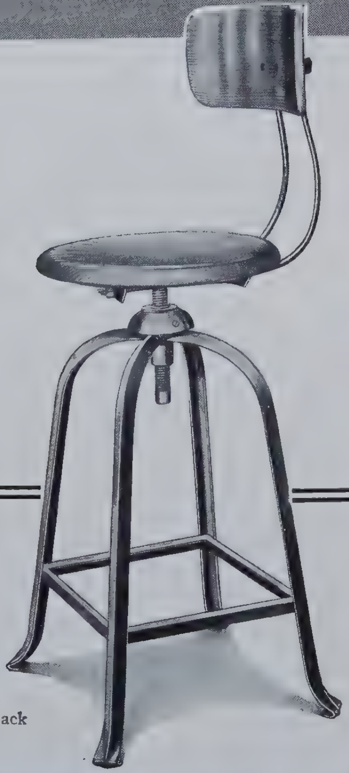

Fig. 1266
Pat. applied for
Wood Seat and Back

"HALLOWELL"
STEEL STOOLS

Designed by men who have personally spent many years "on the board", the stool shown above permits draftsmen full freedom of movement plus the greatest possible comfort. This combination of advantages does much to eliminate the familiar afternoon let-down and at all times provides work-producing comfort.

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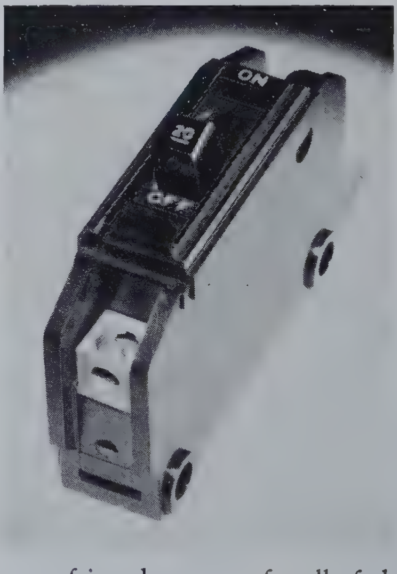
A. W. FABER TO INTRODUCE NEW AMERICAN-MADE DRAWING PENCIL

H. V. Bittman, sales manager of A. W. Faber, Inc., Newark, N. J., announces that the name of A. W. Faber, associated with pencils for 180 years, will soon appear on an American-made 10-cent drawing pencil to be called the Winner Techno-Tone. A. W. Faber is best known in the drawing materials field as American sponsors of the 15-cent Castell drawing pencil.

The new line of drawing pencils, made in 17 tones of black ranging from 6B to 9H, will be placed on the market about January 15th. Among the qualities claimed for the new pencil are grit-free smoothness and deep richness of color. Men engaged in the pencil crafts are invited to write for samples in the degrees they most frequently use.

NEW SMALL CIRCUIT BREAKER

New perfection in circuit protection is attained by a new small circuit breaker just announced by the Westinghouse Elec. & Mfg. Co., East Pittsburgh, Pa. Designed primarily for the protection of lighting, appliance, and motor circuits in homes, buildings, stores, and factories, this new Quicklag circuit breaker introduces a new principle to circuit protection. It is said to successfully combine for the first time in a single unit a cooperative magnetic and a thermal trip. It is available in ratings of 15, to 35 amperes, single pole only, 250 volts a-c and 125 volts d-c.



The combination of the Bimetal thermal and the magnetic trip actions gives the new device the advantage of instantaneous trip on short circuits combined with the well-known advantage of time-delay for momentary overloads such as those caused by lamp, appliance, or motor inrush currents. The thermal action is designed to take care of inrush currents for all of the common combinations of household appliances without causing an unnecessary service outage. The magnetic action gives instantaneous circuit opening for all short circuits, even those in the lower current ranges—down to 200 amperes—such as are caused by incomplete flexible cord shorts.

Among the other features of this new breaker are: Its size which is smaller per watts capacity than that of any similar circuit breaker before it; there are no live parts exposed to accidental contact; calibration is permanent and is sealed against tampering; contacts are low-resistant and tests show that they remain so. The operating mechanism gives a quick make and break, and arcs resulting from heavy current interruptions are quickly snuffed out by the De-Ion grid assembly. To facilitate connections, solderless terminals are used.

Automatic operation is indicated by the handle position, which has a central tripped position. Current ratings are clearly and plainly marked on the operating handle, which is trip-free.

NEW PERSPECTIVE WINDOW

Perspective Windows, Inc., 646 North Michigan Ave., Chicago, Ill., is marketing a new type of window, known as the Perspective Window, for use in homes, schools, hospitals, office and industrial buildings. It is constructed without mullions or muntins thus providing large uninterrupted glass areas and admitting more light.

Perspective windows swing around on pivots which allow the window to assume an automatic ventilating position. They are especially designed for double glazing, which eliminates all trouble of fitting and removing storm sash, keeps out cold in winter and heat in summer. Perspective windows can also be furnished with single sash for single glazing.

All surfaces of the Perspective window can be easily and entirely cleaned from the inside. It can be made to be used either with an awning screen, or with a free-view screen over the lower portion of the window. A special blind can be completely built in between double sash if desired. Regular roll shades can be built in for both single and double sash.

Various combinations with the Perspective window as a main element are possible. The new window is manufactured of pine; hardwood and pine; combination of hardwood, aluminum and pine; aluminum; bronze and steel.

NEW LOW-COST WALL BOARD

Marsh Wall Products, Inc., Dover, Ohio, manufacturers of Marlite and Marlite genuine wood-veneers announce Macolite—a new type of presdwood material with a baked on tile-like finish that is said to be equally impervious to moisture, stains, and dirt. Furthermore, it is not affected by acids, alkalis and non-abrasive cleaning compounds thereby insuring an easy-to-clean surface that will retain a fresh appearance for many years. This new product, it is stated, is priced so low as to bring prefinished wall panelling within reach of everyone.

Architects, in particular, will find Macolite especially valuable for it provides unlimited scope for creating fine interiors. Macolite is available in both plain and tile design in large wall-size sheets (4 ft. by 12 ft.) which a carpenter can easily handle and cut to the desired size. It comes in five pastel shades: light ivory, light yellow, powder blue, light green and coral, as well as in black and white. The colors of mortar lines for tile-design sheets are gray, black, ivory and white. Other colors and designs are supplied on special order.

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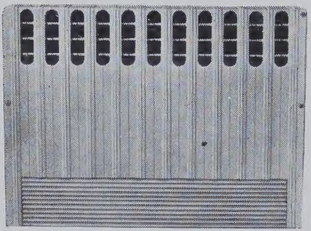

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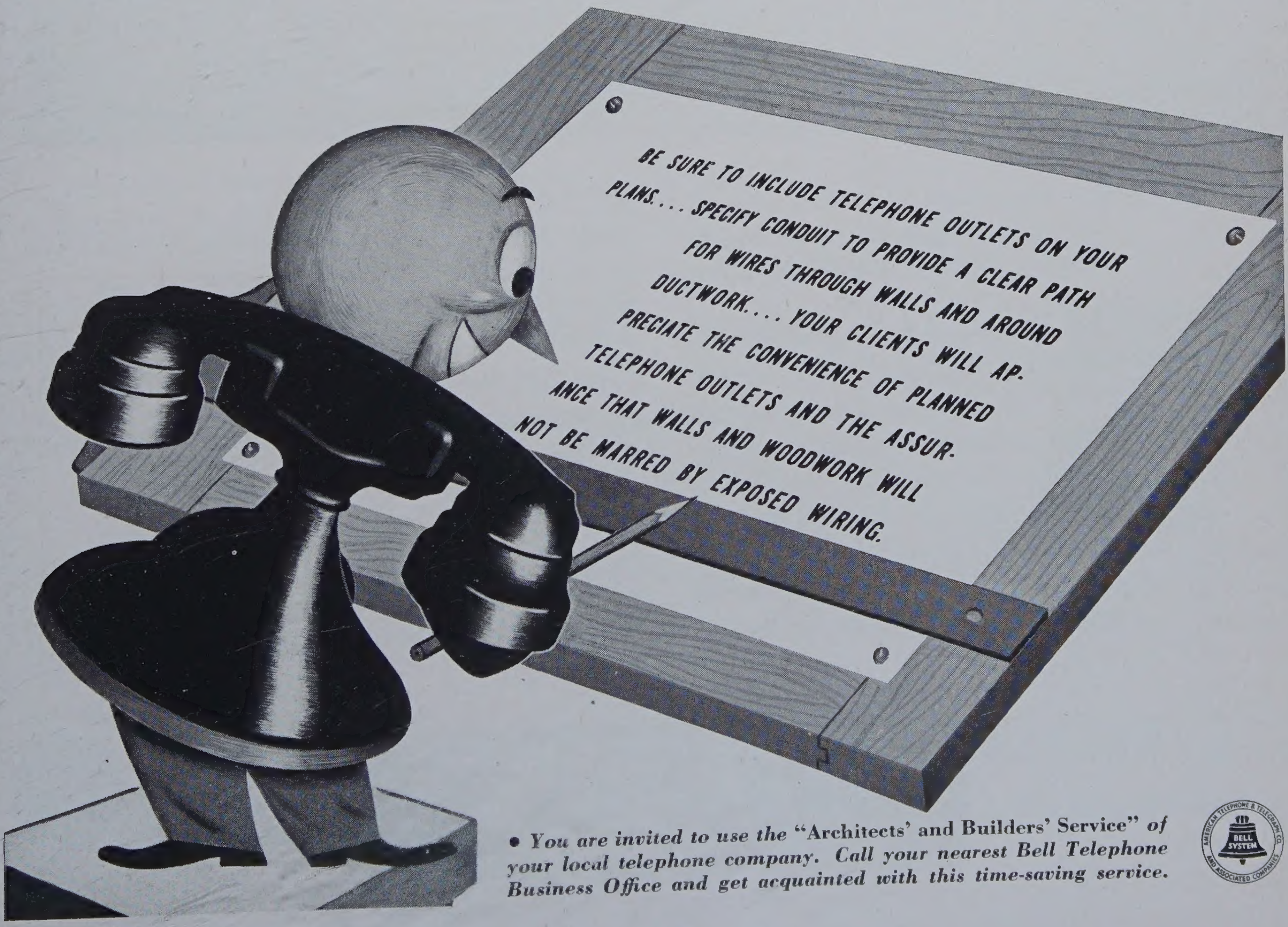
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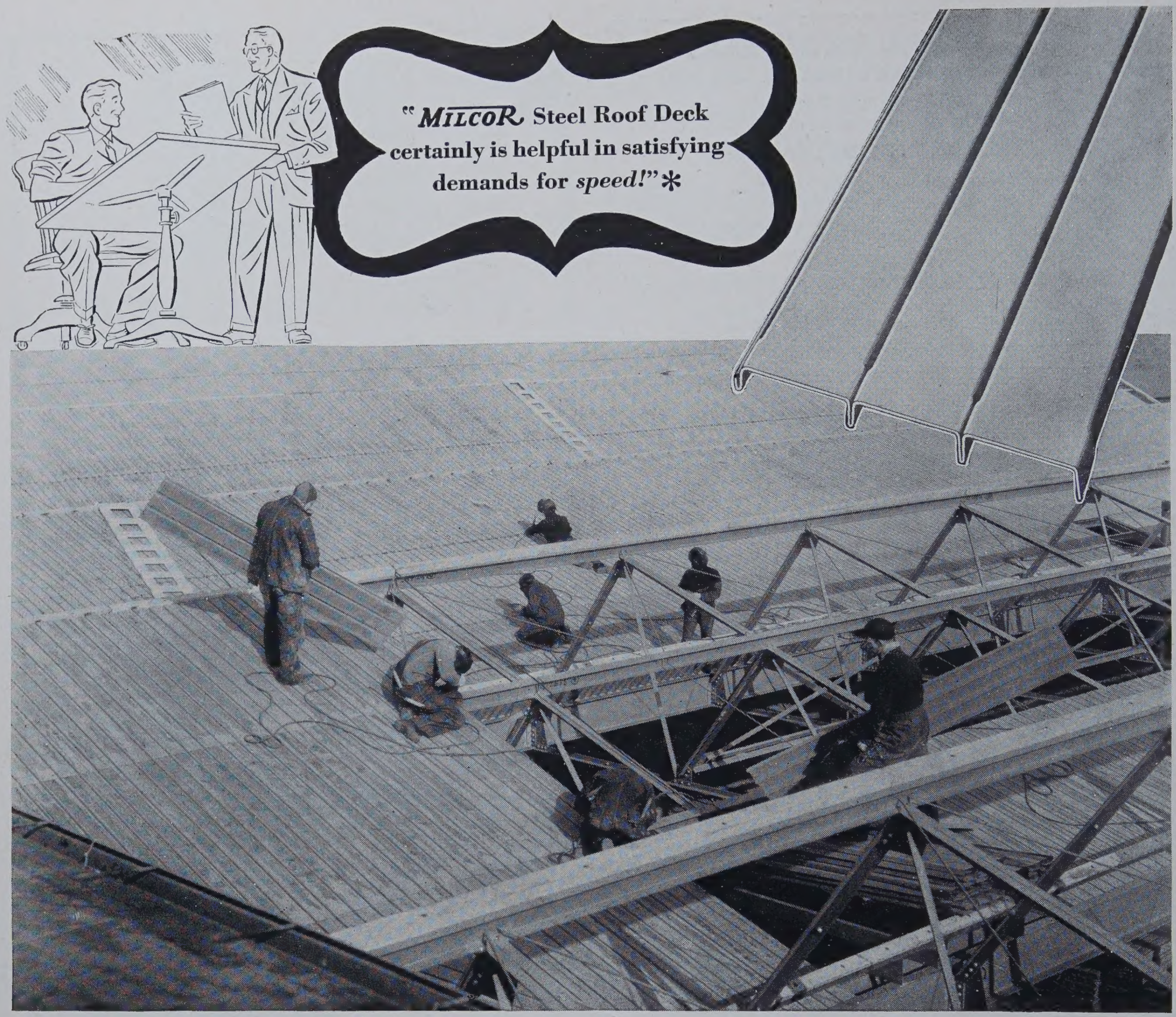
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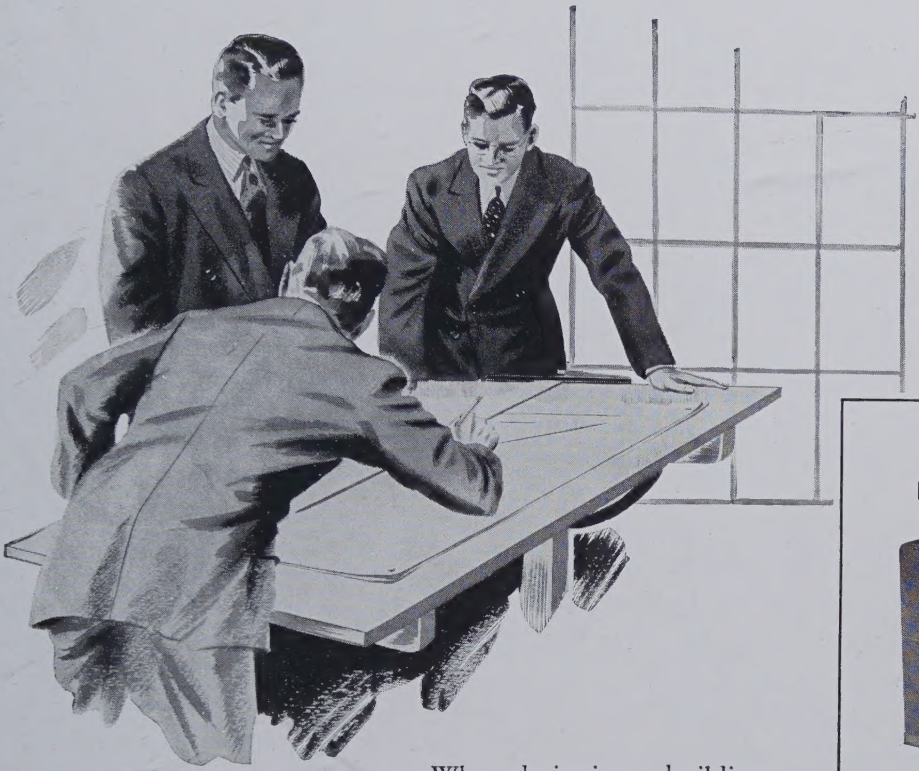

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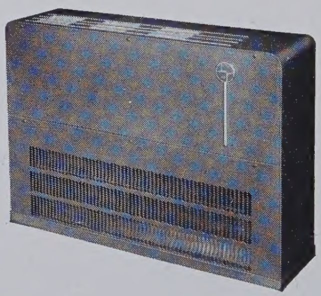

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